ASTOUNDING Science-fiction

AUG. '43

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JUDGMENT NIGHT

BY C. L. MOORE

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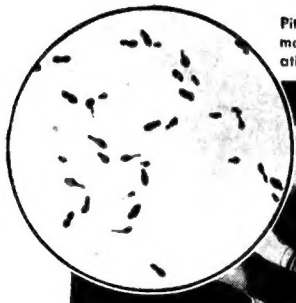

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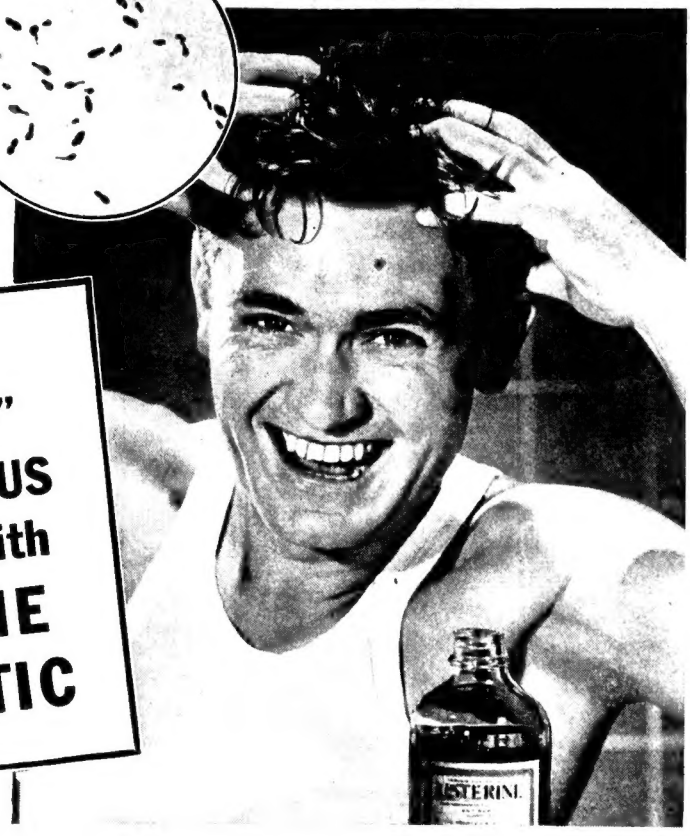

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SCIENCE-FICTION
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Contents for August, 1943, Vol. XXXI, No. 6

John W. Campbell, Jr., Editor, Catherine Tarrant, Assistant Editor

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First of two parts of C. L. Moore's first science-fiction novel—of a fight for the existence of an empire and a race, a fight that depended, in the end, on how one man and one woman handled their own affairs.

Novelette

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An artist found a new way to handle the problem of self-portraiture—another man saw a way to world rule—another was doomed, shot out into space on the one-way trip to nowhere—because of a curious mineral!

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Ley was one of the principal workers of the German Rocket Society—and knows what it accomplished and why it ended. Both are of interest to science-fiction; in this two-part article are the answers.

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BUCK UP, BILL, WHY NOT TRY AN INDUSTRY THAT'S GROWING--WHERE THERE'S MORE OPPORTUNITY

MARY'S RIGHT-- I'M NOT GETTING ANYWHERE. I OUGHT TO TRY A NEW FIELD TO MAKE MORE MONEY
LOOK AT THIS - RADIO IS CERTAINLY GROWING FAST -- AND THE NATIONAL RADIO INSTITUTE SAYS THEY TRAIN MEN FOR RADIO RIGHT AT HOME IN SPARE TIME
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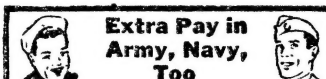

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Noncommunication Radio

A moderate degree of reading between the lines—both front lines and newspaper lines—makes it reasonably clear that science-fiction authors are going to be in an uncomfortable spot, come the end of the war. When hostilities end, the technical journals—now devoted to articles shifting decimal points and theses on the place of scientists in war—are going to explode with articles on basic discoveries. It will probably be two years or so before most of the first-line technical scientific journals will have worked off the backlog of fundamental-discovery articles, and begin to find space for articles on new applications of the new fundamental discoveries.

During that initial period, any science-fictionist is almost certain to see his story predicting invention X on the stands about the same time one of the technical journals describes how, back in the latter part of 1942, invention X was worked out, superseded by the greatly improved invention Y, and finally discarded when invention Z, in late 1943, combined the functions of invention X with three new functions, R, S and T, with a greatly increased overall effectiveness.

This war-caused break in international scientific information exchange came at a highly critical moment in the progress of science. Ten years ago —say 1930—there was a period of general assimilation of previously discovered fundamentals, and no great increase in fundamental discovery in immediate prospect. During the '30s, at least five fundamental discoveries in atomic physics were made—the neutron and positron were discovered then, for instance; not picayune reconsiderations of pre-existent discoveries, but basic discoveries that completely changed the picture. The cyclotron and synthetic radioactive isotopes came in then. There was a decade of extremely rapid fundamental advance—but the decade of those discoveries simply opened the way to their exploitation in the next decade. We'd found the keys; the next decade would see them turned in the locks that sealed new whole cabinets of learning.

The keys are turning—but the key turners aren't telling now what they find in those cabinets. After the war, the announcements will come.

In 1930, "electronics" and "radio" were practically synonymous, and "radio" meant "wireless communication between two persons at considerable distances."

Now, "electronics" is to "radio" as "cooking" is to "cake baking." Johnny Q. Public doesn't understand that yet; in 1939, when war silence clamped down, like a graduate of a high-school domestic science course, cake baking was about all electronics had really learned to handle. And radio is divided into two broad fields—communication radio and noncommunication radio. You've read about spy rays and the like in science-fiction? Well, we can't really say that noncommunication radio is quite that, but it's a first-rate ersatz. The general field covers any form of radio not used to communicate between two persons; more specifically, it's radio used to reach out, pick up information at a distance, and come home with the data. It's radio reconnaissance, and a

hundred other things. The radar is the best known—practically the only publicly known—example of noncommunication radio. It supplies man with an intangible tactile sense that can reach out hundreds of miles to "feel" an enemy approaching. (Nature missed a bet on that one; no life form, so far as known, developed the radar sense. What a time a lion would have sneaking up on a radar-protected deer! But Nature did give bats something of a radar sense. The bat squeaks, issuing sharp little spurts of high-frequency sound, and the reflection of those sound waves tells the bat of invisible obstructions. *Very* useful to a night-flying animal, and makes possible the use of absolutely lightless caves as homes, caves so lightless no other type of creature can follow to attack.)

Electronics has been most applied in this war; atomic physics is handicapped to date by two major factors. First, and most important, is the fact that it could end the war in a day, in a fraction of a second, beyond doubt—but there's considerable doubt as to whether there would then be a post-war-world to worry about. Be it remembered, we are not fighting to end the war; we're fighting to have the kind of world wherein men can live in freedom. For that to be possible there must be at least a world wherein men can live. In its present state, atomic physics applied to war might, like the headsman's ax, prove the "sharp medicine that cures all ills."

The second handicap of atomic physics devolves from the first. Experimentation must be done only after it is no longer an exploratory, but a confirmatory experiment. If a trial-and-error electronic experiment goes wrong, it may simply fail, it may blow out a tube, or may even kill a man—but a blown-out tube is the usual penalty. We can't afford a penalty of a blown-out continent, however, that trial-and-error work in atomic physics might entail.

Metallurgical research is never spectacular, its results never impress the public. The fact that one-hundred-octane gasoline makes possible the modern two thousand horsepower plane engine is vaguely accepted. The fact that the metallurgical advances necessary to produce metals capable of standing those strains such a power plant imposes is harder to appreciate.

But the new metals, the radar-type absolute altimeter, the radar-locator at every airport, the new understanding of aerodynamics, will all be needed to make the helicopter jellopy. They'll make it possible for ground personnel to lead Joe Dimwitte back to ground out of a zero-zero fog bank so Joe'll still be around to buy next year's model helicopter.

Since human minds work backward in time far better than they do forward, we blithely accept the immense changes of the last fifteen years—but demand that at least one hundred fifty years be taken for an equal percentage change from our present status. Spy rays for 2103—but not for 1953. Spaceships for 2024—but not 1954.

When this war ends, probably eighty percent of science-fiction is going to look silly, because its predictions have been so wild. We've had stories laid hundreds of years hence wherein marvelous new inventions were described—inventions which were made and discarded in favor of improved systems in 1942.

I don't think they've developed time travel yet; there wouldn't have been a war if they had. I don't believe they've developed effective, usable antigravity yet; Henry J. Kaiser would be building somewhat different hulls if they had. But I can't at the moment think of any other major science-fiction mechanism that I'd be willing to bet isn't in at least a laboratory stage of development. But I'm darned sure that the author who can think up devices for science-fiction use that are reasonably well ahead of the technical journals after the war will be really stretching his imagination.

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Judgment Night

by C. L. Moore

First of two parts of a new, powerful novel by one of science-fiction's finest writers—a novel of a rebellion told from the viewpoint of a girl who rebelled against the rebellion.

Illustrated by Williams

Here in the flickering darkness of the temple, a questioner stood silent before the Ancients, waiting an answer he knew he could not trust.

Outside were the soft green hills and the misty skies of Ericon, but not even a breath of that sweet rainy air blew the portals of the House of the Ancients. Nothing temporal ever touched them now. They were beyond all time and change. They had lived here since the first silver ships came swarming through the Galaxy; they would never die.

From this world of Ericon the pulse of empire beat out through interstellar space, tides waxing and ebbing and breaking in distant thunder upon the shores of the planets. For the race that held Ericon held the Galaxy.

Kings and emperors beyond counting had stood as this questioner stood now, silent before the Ancients in their star-shot dark. And the questioners were always answered—but only the Ancients knew if the answer meant its hearer's doom.

For the Ancients were stern in their own strange code. No human minds could fathom it. No human ever knew if his race had met their rigid tests and passed them, or if the oracle he received was a mercy-blow that led by the quickest road to destruction.

Voiceless, unseen behind their high altar, the Ancients answered a question now. And small in the tremendous shaking darkness of the temple, he who had come to satisfy a doubt stood listening.

"Let them fight," the unspeaking oracle said. "Be patient a little longer. Your hour is almost here. They must have their chance in the final conflict that is nearly upon them now—but you know how blind they are. Be patient. Be silent. Watch all they say and do, but keep your secret—"

The hundred emperors of Ericon looked down gravely out of their hundred pasts upon Juille, striding with a ring of spurs through the colored twilight of their sanctum.

"If I were a man," said Juille, not turning her head, "maybe you'd listen to me."

No answer.

"You used to want a son," reminded

Juille, and heard her own voice echo and re-echo high up among the arches where sunlight came pouring through plastics the color of jewels.

"I know, I know," the old emperor said from the platform behind her. "When I was your age, I was a fool, too."

Juille flashed him a sudden grin over her shoulder. Once in a while even now, she thought, you could catch a glimpse of the great and terrible man her father had once been.

Out of their crystal-walled niches his predecessors and hers looked down as she strode past them. Here were men who had conquered the Galaxy world by reluctant world, great warriors who had led their armies like devouring flame over alien planets and alien seas and the passionless seas of space. Here were emperors who knew the dangerous ways of peace and politics, who had watched civilization mount tier upon shining tier throughout the Galaxy.

She turned at the end and came back slowly along the rows of later rulers, to whom peace and the Galaxy and a rich heritage of luxury had been an old story. Pride of race was strong upon all these faces. People on outworld planets had worshiped them as gods. All of them had been godlike in the scope of their tremendous powers, and the knowledge of it was vivid upon their faces. Not many men have looked up by night with a whole planet for a throne, to watch the stars that are their empire parading in slow review across the heavens. Such knowledge would give even a weak face an appalling pride and dignity, and none of the emperors of Ericon had been weak. Men like that would not live very long upon the throne of the Galaxy of Lyonese.

The last three faces in the row had known humiliation almost as vast in its scope as the great scope of their pride. For now there were rebellious stars in the nightly array across the sky. And that fierce trouble showed in the eyes and the grimly lined faces of the emperors who had been defied.

The last portrait of all was the portrait of Juille's father.

She stood in silence, looking up at the young emperor in the niche, and the old emperor, arms folded on the platform rail, leaned and looked down across a gulf of many years and much hard-won experience, into the face of a stranger.

"Yes," the emperor said gravely, "I was a fool too, then."

"It was a fool's work to let them live," Juille told him hotly. "You were a great warrior in those days, father. Maybe the greatest the Galaxy ever had. I wish I'd known you then. But you weren't great enough. It takes a great man to be ruthless."

The emperor looked at her under the shadow of his brows. "I had a hard problem then," he said, "—the same problem you're facing now. If I'd chosen the solution you're choosing, you probably wouldn't be here today. As a matter of fact, you might be sitting in a cave somewhere, gnawing a half-cooked bone."

Juille gave him a bright violet glare. "I'd have wiped them out," she declared furiously, "if it meant the end of the empire. I'd have killed every creature with a drop of H'vani blood, and razed every building on every world they had, and sown the rocks with radium! I'd have left their whole dead system hanging in the sky as a warning for all time to come. I'll do it yet—by the Hundred Emperors, I will!"

"The Ancients permitting, maybe you will, child." The old emperor stared down into his own young face in the niche. "And maybe you won't. The time may come when you're old enough to realize what warfare on that scale would mean, even to the victors. And there'd be no victors after a fight like that."

"But father, we'll have to fight. Any day—any hour—"

"Not yet awhile, I think. The balance is still too even. They have the outer fringes with all their resources, but

we . . . well, we have Ericon and that counts for a lot. More than the men and machines we have. More than all the loyal worlds. Nobody knows how many dynasties there were before ours, but everyone knows that the race on Ericon rules the Galaxy."

"As long as they hold Ericon. But sooner or later the balance is going to tip and they'll attack us. We'll have to fight."

"We'll have to compromise."

"We could cut our throats and be done with it."

"That's what I'm trying to prevent. How much of civilization do you think would survive any such holocaust as that? It would mean our ruin even if we won. Come up here, child."

Juille gave him a searching, sidewise glance and then turned slowly, hooking her thumbs into her sword belt, and mounted the shallow steps to the dais. Here in orderly array were the worlds of her father's empire, stretching in a long row left and right along the platform. She watched a little sulkily as the emperor laid a possessive hand upon the great green globe of Ericon in the center of the row and set it whirling beneath his fingers. The jewels that marked its cities flashed and blurred.

"This is the empire, Juille," he said. "This one world. And the empire means a great deal more than—well, a row of conquered planets. It means mercy and justice and peace." He shook his head unhappily. "I can't administer all that any more to every world in the Galaxy. But I won't throw the loyal worlds after the ones we've lost if any word of mine can prevent it." He let his hand fall from the spinning globe. Its turning slowed, and the jeweled cities flashed and faded and twinkled over the curved surface. "After all," the old man said, "isn't peace as we've known it worth—"

"No," said Juille flatly. Her father looked at her in heavy silence. "I can do *that* to Ericon," she told him, and with a slap of her hand set the big globe spinning again, until all the glittering cities blurred upon its sides. "As long as I can, the empire is ours. I won't share it with those hairy savages!"

The emperor was silent, looking at her from under his brows.

After a slightly uncomfortable pause, the girl turned away.

"I'm leaving," she said briefly.

"Where?"

"Off-world."

"Juille—"

"Nothing rash, father, I promise. I'll be back in time for the council. And I'll have a majority vote, too. You'll see the worlds agree with me." Her voice softened. "We've got to fight, father. Everyone says so but you. Nothing anyone can do will prevent it now."

Looking down, her father saw on the girl's face a look he knew very well—the terrible pride of a human who has tasted the attributes of divinity, who rules the turning worlds and the very stars in their courses. He knew she would not relent. He knew she could not. There were dark days ahead that he could not alter.

And he wondered with sudden self-doubt if after all, in her frightening certainty, she might be right.

Juille strode down the hallway that led to her living quarters, her spurs ringing with faint rhythmic music and the scabbard of her fire sword slapping against her thigh.

There had been many tremendous changes in the Lyonese culture even in her own lifetime, but perhaps none greater than the one which made it possible for her to take the part a son might have taken, had the emperor produced a son. Women for the past several generations had been turning more and more to men's professions, but Juille did not think of herself as filling a prince's shoes, playing a substitute role because no man of the proper heritage was available. In her the cool, unswerving principles of the amazon had fallen upon fertile ground, and she knew her-

self better fitted and better trained for the part she played than any man was likely to be.

Juille had earned her military dress as a man might have earned it, through lifelong training in warfare. To her mind, indeed, a woman was much more suited to uniform than a man, so easily can she throw off all hampering civilian ideas once she gives her full loyalty to a cause. She can discard virtues as well as vices and live faithfully by a new set of laws in which ruthless devotion to duty leads all the rest.

For those women who still clung to the old standards, Juille felt a sort of tolerant contempt. But they made her uneasy, too. They lived their own lives, full of subtle nuances she had never let herself recognize until lately. Particularly, their relationship with men. More and more often of late, she had been wondering about certain aspects of life that her training had made her miss. The sureness and the subtlety with which other women behaved in matters not associated with war or politics both annoyed and fascinated Juille. She was, after all, a woman, and the uniform can be discarded as well as donned. Whether the state of mind can be discarded, too —what lay beneath that—was a matter that had been goading her for a long while. And now it had goaded her to action.

In her own rooms she gave an abstracted glance to the several women who hurried forward at her entrance, said briefly, "Out. And send me Helia," and then leaned to the mirror and stood there peering with solemn intentness at her own face under the shining helmet. It was a sexless face, arrogant and intolerant, handsome as her fluted helmet was handsome, with the same delicately fine details and well-turned curves. The face and the helmet belonged together.

She saw a figure move shadowily in the doorway reflected beyond her shoulder, and said without moving, "Helia—how will I look in dresses? Would you say I'm pretty?"

"You certainly aren't ugly, highness," Helia told her gruffly. It was as much of a compliment as she had ever extracted from the amazon ex-warrior who had been Juille's childhood nurse and girlhood tutor in the arts of war. She had a seamed face, scarred from combat in the revolution zones, and the twinkling narrow eyes of a race so old that Juille's by comparison seemed to lack a history. Helia was an Andarean. The tide of conquest had swept over the Galaxy and ebbed again since the day of Helia's race and its forgotten glory. Perhaps somewhere under the foundations of the Lyonese cities today lay rubble-filled courses the Andareans had once built upon the ruins of cities yet older. No one remembered now, except perhaps the Ancients.

Juille sighed.

"I'll never find out from you," she said.

"You'll get an answer on Cyrille, highness, and you may not like it."

Juille squared her shoulders. "I hope you've kept your mouth shut about all this. Is the ship ready?"

"It is. And I haven't told a soul. But what your father would say, highness, if he knew you were going to a notorious resort like Cyrille—"

"Perfectly respectable people go there, and you know it. Anyhow, I'm going incognito. And if I hear another word about it I'll have you whipped."

Helia's lipless mouth compressed in disapproval.

"Incognitos don't always work, highness. You should know how secrets leak out around a palace." She caught a dangerous violet glance and subsided, muttering. She knew that stubborn look upon Juille's fine, hard features. But she knew the dangers upon Cyrille, too. She said, "You're taking me with you, I hope?"

"One more word and I won't," Juille warned her. "One more word!" She straightened from the mirror, after one last curiously appraising glance. "Come along, if you want to. I'm leaving."

At the door a small, smoothly furred creature rippled past Juille's ankles with an ingratiating murmur and looked up out of enormous eyes. Juille stooped to let it climb upon her shoulder, where it sat balancing easily and staring about it with the grave animal dignity and the look of completely spurious benignity and wisdom that distinguishes all *llar*. Very few on Ericon own such pets. They were perhaps the true aborigines of Ericon themselves, for they had lived here, and upon no other world, from time immemorial, reserved little creatures of fastidious habits and touchy, aloof ways.

"I'll take both of you," Juille said. "And I expect you'll be just about equally in the way. Come on."

Their ship spiraled up through the rainy gray air of Ericon, leaving the green mountains farther and farther below with each wide circle, until the surface of the planet looked like undulating green fur, soft with Erison's eternal summer. Presently they were above the high clouds, and rain ceased to beat softly against the glass.

The little ship was riding a strictly prescribed course. The sternest of the Ancients' few restrictions upon human life on Ericon was the restriction on air traffic. All passage was forbidden over the great forests in which the living gods dwelt. The Galaxy's vast space liners had of their own weight to establish an orbit and transact all direct business through tenders, but tenders and private ships plying Ericon's forbidden airways complied with rigid rules about height and course. Because of them, Ericon was a world of surface traffic except in the rarest instances.

Juille sent her vessel flying along an invisible airway of strict boundaries. Presently they overtook twilight and plunged into the evening air that was darkening over the night side of the world. A great luminous bubble floated in the dark ahead, too large for a star, too small for a moon, rolling along its course around Ericon. Helia scowled at it.

This little pleasure world swinging opalescent upon its orbit housed the tangible distillation of all pleasure which a hundred emperors had made possible in the Galaxy. No human desire, however fantastic, went unfulfilled upon Cyrille so long as the client paid for his fantasy. It is an unhappy commentary upon human desires that the reputation of such a place must inevitably be bad.

Juille's ship hovered up below the shining curve of the bubble and a dark square opened in the curve. Then luxury reached out in the form of a tractor beam to take all navigation out of her hands. They rose with smooth speed through a shaft of darkness.

Because privacy and anonymity were prerequisites of many patrons here, they saw no one and were seen by none. The ship came to a velvety stop; Juille opened its door and stepped out straight into a cubicle of a room whose walls glowed in a rosy bath of indirect sunlight. Low couches made a deeply upholstered ledge all around the room. There was a luminous panel beside a closed door. Otherwise—nothing.

Helia, climbing out disapprovingly. "I hope you know what you're doing, highness," she said. For answer, Juille stepped to the luminous panel and let her shadow fall across it. Instantly a voice of inhuman sweetness said dulcetly:

"Your pleasure?"

"I will have," Juille said in a musing tone, "a lounge with sunlight and an ocean view—no particular planet—and a bedroom that— Oh, something restful and ingenuous. Use your own ideas on that. A water bath with the emphasis on coolness and refreshment. Now let me see the public rooms for today."

"Immediately," the dulcet voice cooed. "The suite will be ready in five minutes. Refreshment?"

"No food yet. What have you?"

A breath as soft and cool as a moun-

tain breeze at dawn sighed instantly through the room. It smelled faintly of pine. Gravity lessened almost imperceptibly underfoot, so that they seemed to be blowing with the breeze, though they did not move.

"Very nice," Juille told the panel. "Now, the public rooms?"

"The central hall will be a spring twilight on Egillir for the next twelve hours," the inhuman voice announced, and in the panel, in miniature, appeared a vast sphere of a room, the inside of a luminous bubble whose walls were the green translucence of an evening in spring, just dim enough to cloud the vision. Up through the center of the bubble sprang an enormous tree, its great trunk gnarled and twisted. Around the trunk wound a crystal staircase entwined with flowers. Men and women moved leisurely up and down the steps around the vast trunk.

Spraying out exquisitely through the hollow of the sphere were the tree's branches, feathery with leaves of pastel confetti. And floating here and there through the green twilight of the bubble, or nested among the limbs, or drifting idly about through the flowers and the leaves of the vast tree, were crystal platforms upon which diners sat embowered in little arbors of confetti leaves like the tree's.

A soft breeze blew delicately through the twilight, stirring the leaves, and the softest possible music swelled and sank upon the air.

"There is also," the disembodied voice went on as the vision faded, "dancing upon the royal lake of the Dullai satellite—" And in the panel Juille saw couples gliding to stronger music across what appeared to be the mirror-smooth waters of a lake that reflected a moving array of stars. She recognized the lake and the lighted tiers of a city around it, which she had visited on a political mission once several years ago, on a world far away across the Galaxy. The panel blurred again.

"We have also," continued the sugary voice, "several interesting variations of motion available for public use just now. A new swimming medium—" Pause. "An adaptation of musical riding—" Pause. "A concert in color and motion which is highly recommended as—"

"Never mind just now," Juille interrupted. "Send me your best dresser, and let me have some of the Dullai mountain music. I'll try your flower scents, too—something delicate. Keep it just subsensual. I don't want to be conscious of the separate odors."

Helia gave her mistress a piercing look as the panel went blank. Juille laughed.

"I did it well, didn't I? For one who never visited the place before, anyhow. I've been reading everything I could find about it for a month. There—nice music, isn't it?"

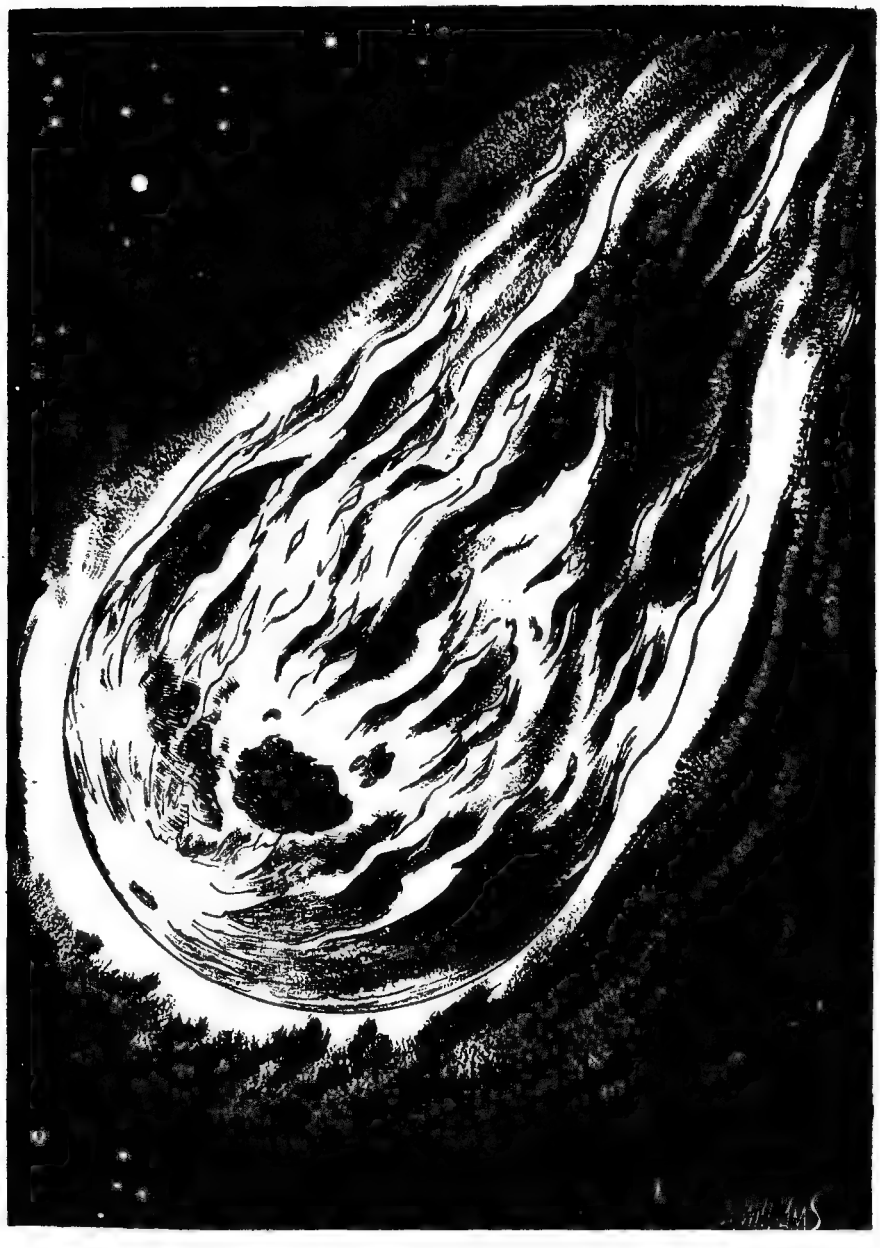
The distinctive plaintive vibration of Dullai music sheets began to shiver softly through the room. On a world far away in space, from a period three generations ago, the sad, wailing echoes rang. No living musicians could play the flexible metal sheets now, but upon Cyrille all things were available, at a price.

"The rooms seem to be ready, highness," Helia remarked dryly.

Juille turned. A broad doorway had opened in the wall, and beyond it was a long, low room through which sunlight poured softly. The floor gave underfoot, firm and resilient. Furniture held out upholstered arms in invitation to its series of upholstered laps. Beyond a row of circular windows which filled one wall an ocean of incredible greenness broke in foam upon colored rocks.

The bedroom was a limbo of dim, mysterious blue twilight beyond a circular doorway veiled in what looked like floating gauze. When Juille stepped through she found it was a sort of captive fog instead, offering no resistance to the touch.

The nameless designers of Cyrille had outdone themselves upon the bedroom.



For one thing, it appeared to have no floor. A film of very faintly dim-blue sparkles overlying a black void seemed to be all that upheld the tread. A bed like a cloud confined in ebony palings floated apparently clear of the nonexistent floor. Overhead in a night sky other clouds moved slowly and soporifically over the faces of dim stars. A few exquisitely soft and firm chairs and a chaise longue or two had a curious tendency to drift slowly about the room unless captured and sat upon.

There was a fog-veiled alcove that glittered with mirrors, and beyond it a bathroom through which a fountain of perfumed water played musically and continuously.

Helia's astringent expression was eloquent of distaste as she followed her mistress through the rooms. The pet *llar,* clinging to her shoulder, turned wide eyes about the apartment and murmured now and then in meaningless whispered syllables.

"Just what are your plans, highness?" Helia demanded when they had finished the tour. Juille glanced at her crossly.

"Very simple. I'm going to spend a few days enjoying myself. Is there anything wrong with that? I'll have some new clothes and visit the public rooms and see what it's like to be an ordinary women meeting ordinary people."

"If you were an ordinary woman, there might still be something very wrong with it, highness. But you aren't. You have enemies—"

"No one knows I'm here. And don't look so grim. I didn't come to experiment with exotic drugs! Besides, I can take care of myself. And it's none of your business, anyhow."

"Everything you do is my business, highness," Helia said gruffly. "I have no others."

Elsewhere in Cyrille a young man in a startling cloak sat at breakfast beside broad windows that opened upon a fairyland of falling snow. The lushed, whispering rush of it sounded through opened casements, and now and then a breath of chilly wind blew like a stimulant through the warm room. The young man was rubbing the curls of the short, yellow beard that just clouded the outlines of his jaw, and grinning rather maliciously at his companion.

"I work too hard," he said. "It may be Juille of Ericon, and again, it may not. All the same, I'm going to have my vacation."

"It's time to stop playing, Egide," said the man across the table. He had a tremendous voice, so deep and strong that it boomed through the hush of the falling snow and the glasses vibrated on the table to its pitch. It was a voice that seemed always held in check; if he were to let it out to full volume the walls might come down, shaken to ruins by those deep vibrations.

The man matched his voice. He wore plain mail forged to turn a fire-sword's flame, and his hair and his short beard, his brows and the angry eyes beneath were all a ruddy bright color on the very verge of red. Red hair grew like a heat haze over the rolling interlace of muscles along his heavy forearms folded upon the table, and like a heat haze vitality seemed to radiate from his bull bulk and blaze from his scarred, belligerent face.

"I didn't . . . acquire . . . you to be my conscience, Jair," the young man said coldly. He hesitated a little over the verb. Then, "Oh, well—maybe I did." He pushed back his chair and stood up, the outrageous cloak swirling about him. "I don't really like this job."

"You don't?" The big red man sounded puzzled. Egide gave him an odd glance.

"Stop worrying about it. I'll go. What will she be like? Hatchet face, nose like a sword— Will I have to kiss her feet?"

Jair said seriously, "No, she's incognito." The glasses rang again to the depth in his voice.

Egide paused before the mirror, admiring the sweep of cloak from his fine breadth of shoulder. Alone he would have seemed a big man himself; beside Jair he looked like a stripling. But no one, seeing them together here, could fail to sense a coldness and a curious lack of assurance behind all Jair's dominant, deep-voiced masculinity. He watched Egide with expressionless eyes.

The younger man hunched his shoulders together. *"Br-r-r!* What a man will go through to change the fate of the Galaxy. Well, if I live through it I'll be back. Wait for me."

"Will you kill her?"

"If I can."

"It must be done. Would you rather I did, later?"

Egide gave him a dispassionate glance. For a moment he said nothing. Then—

"No . . . no, she doesn't deserve that. We'll see what she's like. Unless it's very bad, I'll spare her that and kill her myself—gently."

He turned to the door, his amazing cloak swinging wide behind him. Jair sat perfectly motionless, watching him go.

Helia said, "This will be the dresser." A sustained musical note from the entry preceded the amplified sweetness of the familiar inhuman voice, and Juille turned to the door with considerable interest to see what came next.

The best dress designer upon Cyrille seemed to be a soft-voiced, willowy woman with the pink skin and narrow, bright eyes of a race that occupied three planets circling a sun far across the outskirts of the Galaxy. She exuded impersonal deftness. One felt that she saw no faces here, was aware of no personalities. She came into the room with smooth, silent aloofness, her eyes lowered.

But she was not servile. In her own way the woman was a great artist, and commanded her due of respect.

The composition of the new gown took place before the mirrored alcove that opened from the bedroom. Helia, her jaw set like a rock, stripped off the smart military uniform which her mistress was wearing, the spurred boots, the weapons, the shining helmet. From beneath it a shower of dark-gold hair descended. Juille stood impassive under the measuring eyes of the newcomer, her hair clouding upon her shoulders.

Now she was no longer the sexless princeling of Lyonese. The steely delicacy was about her still, and the arrogance. But the long, fine limbs and the disciplined curves of her body had a look of waxen lifelessness as she stood waiting between the new personality and the old. She was aware of a certain embarrassed resentment, suddenly, at the step she was about to take. It was humiliating to admit by that very step that the despised femininity she had repudiated all her life should be important enough to capture now.

The quality of impassivity seemed to puzzle the artist, who stood looking at her thoughtfully.

"Is there any definite effect to be achieved?" she asked after a moment, speaking in the faintly awkward third person through which all employees upon Cyrille address all patrons.

Juille swallowed a desire to answer angrily that there was not. Her state of mind confused even herself. This was her first excursion into incognito, her first conscious attempt to be—not feminine. She scorned that term. She had embraced the cult of the amazon too wholeheartedly to admit even to herself just what she wanted or hoped from this experience. She could not answer the dresser's questions. She turned a smoothly muscular shoulder to the woman and said with resentfulness she tried to conceal even from herself:

"Nothing . . . nothing. Use your own ingenuity."

The dresser mentally shot a keen glance upward. She was far too well-trained actually to look a patron in the face, but she had seen the uniform this one had discarded, she saw the hard, smooth symmetry of her body and from it understood enough of the unknown's background to guess what she wanted and would not request. She would not have worked her way up a long and difficult career from an outlying planet to the position of head designer on Cyrille if she had lacked extremely sensitive perception. She narrowed her already narrow eyes and pursed speculative lips. This patron would need careful handling to persuade her to accept what she really wanted.

"A thought came to me yesterday," she murmured in her soft, drawling voice—she cultivated the slurred accent of her native land—"while I watched the dancers on the Dullai Lake. A dark

gown, full of shadows and stars. I need a perfect body to compose it on, for even the elastic paint of undergarments might spoil my effect." This was not strictly true, but it served the purpose. Juille could accept the gown now not as romance personified, but as a tribute to her own fine body.

"With permission, I shall compose that gown," the soft voice drawled, and Juille nodded coldly.

The dresser laid both hands on a section of wall near the alcove and slid back a long panel to disclose her working apparatus. Juille stared in frank enchantment and even Helia's feminine instincts, smothered behind a military lifetime, made her eyes gleam as she looked. The dresser's equipment had evidently been moved into place behind the sliding panel just before her entrance, for the tall rack at one end of the opening still presented what must have been the color-selection of the last patron. Through a series of level slits the ends of almost countless fabrics in every conceivable shade of pink showed untidily. Shelves and drawers spilled more untidiness. Obviously this artist was great enough to indulge her whims even at the expense of neatness.

She pressed a button now and the pink rainbow slid sidewise and vanished. Into its place snapped a panel exuding ends of blackness in level parallels—satin that gleamed like dark water, the black smoke of gauzes, velvet so soft it looked charred, like black ash.

The dresser moved so swiftly and deftly that her work looked like child's play, or magic. She chose an end of dull silk and reeled out yard after billowing yard through the slot, slashed it off recklessly with a razor-sharp blade, and like a sculptor modeling in clay, molded the soft, thick stuff directly upon Juille's body, fitting it with quick, nervous snips of her scissors and sealing the edges into one another. In less than a minute Juille was sheathed from shoulder to ankle in a gown that fitted perfectly and elastically as her skin, outlining every curve of her body and falling in soft, rich folds about her feet.

The dresser kicked away the fragments of discarded silk and was pulling out now such clouds and billows of pure shadow as seemed to engulf her in fog. Juille almost gasped as the cloud descended upon herself. It was something too sheer for cloth, certainly not a woven fabric. The dresser's deft hands touched lightly here and there, sealing the folds of cloud in place. In a moment or two she stepped back and gestured toward the mirror.

Juille turned. This tall unknown was certainly not herself. The hard, impersonal, perfect body had suddenly taken on soft, velvety curves beneath the thick soft fabric. All about her, floating out when she moved, the shadowy billows of dimness smoked away in drapery so adroitly composed that it seemed an arrogance in itself.

"And now, one thing more," smiled the dresser, pulling open an untidy drawer. "This—" She brought out a double handful of sequins like flashing silver dust and strewed them lavishly in the folds of floating gauze. "Turn," she said, and Juille was enchanted to see the tiny star points cling magnetically to the cloth except for a thin, fine film of them that floated out behind her and twinkled away to nothing in midair whenever she moved.

Juille turned back to the mirror. For a moment more this was a stranger whose face looked back at her out of shining violet eyes, a face with the strength and delicacy of something finely made of steel. It was arrogant, intolerant, handsome as before, but the arrogance seemed to spring now from the knowledge of beauty.

And then she knew herself in the mirror. Only the gown was strange, and her familiar features looked incongruous above it. For the first time in her life Juille felt supremely unsure of herself. Not even the knowledge that the very stars in the Galaxy were subject to her whim could help that feeling now.

She drew a long breath and faced herself in the glass resolutely.

The tiny elevator's door slid back and Juille stepped out alone upon a curve of the crystal stairs which wound upward around that enormous tree trunk in the central room. For a moment she stood still, clutching at the old arrogance to sustain her here in this green spring twilight through which perfume and music and soft breezes blew in twisting currents. In that moment all her unsureness came back with a rush—she had no business here in these despised feminine garments; she belonged in helmet and uniform. If she walked, she would stride as if in boots and rip these delicate skirts. Everyone would look up presently and recognize her standing here, the warrior leader of the Lyonese masquerading like a fool.

But no one seemed to be looking at all, and that in itself was a humiliation. Perhaps it was true that she was not really pretty. That she did not belong in soft silken gowns. That no man would ever look at her except as a warrior and an heiress.

Juille squared her shoulders under the cloud of mist and turned toward her waiter, who had snapped the switch of a cylinder fastened to the back of his wrist and focused the invisible beam of it upon an empty floating platform across the great hollow. It drifted toward them slowly, circling on repellor rays around intervening objects. Then it was brushing through the leaves of a mighty bough above them, and Juille took the waiter's arm and stepped out over green twilit space into the tiny leafy arbor of the platform. She had expected it to tilt a little underfoot, but it held as steady as if based upon a rock.

She sank into the elastic firmness of a crystal chair, leaned both elbows upon the crystal table and moodily ordered a strong and treacherous drink. It came almost instantly, sealed in an apricot-tinted sphere of glass on a slender pedestal, a glass drinking tube rising in a curve from the upper surface. The whole sphere was lightly silvered with frost.

"Shove me off," she told the waiter, and sipped the first heady draft of her drink in mild defiance as the arbored platform went drifting off among the leaves. A vagrant current caught it there and carried her slowly along in a wide circle in and out of the branches, past other platforms where couples sat with heads close together with exotic drinks. Juille felt very lonely and very self-conscious.

On the curving stairs a young man in a startling cloak looked after her thoughtfully.

There were times, he told himself, when even the most trustworthy of secret informants made mistakes. He thought this must be one of the times. He had been waiting here for some while, watching the crystal stairs patiently. But now—the amazonian princess of Ericon was a familiar figure to him from her news-screen appearances, and it was impossible to identify that striding military creature with this woman swathed in shadows, her garments breathing out stardust that drifted and twinkled and faded behind her like wafts of faint perfume as she moved.

The young man knew very well what magic the dress designers of Cyrille could work, but he could not believe their magic wholly responsible for this. He grinned a little and lifted his shoulders imperceptibly under the remarkable cloak. It would be amusing to find out.

He kept an eye upon the drifting platform and mounted the stairway slowly, keeping level with it.

Juille watched her drink go down in the frosted sphere and was somewhat ironically aware that her spirits were rising to match it. The rigid self-consciousness of her first few minutes had relaxed; the drink made her mind at once cloudy and sparkling, a little like the shadowy draperies she wore. This

was a delicious sensation, floating free upon drifts of perfumed breeze while music breathed and ebbed around her in the green twilight.

She watched the other patrons drifting by, half-seen among the confettilike leaves of their bowers. Many of the faces she thought she recognized. Cyrille was not a world for the rank and file of the Galaxy to enjoy. One had to present stiff credentials to make reservations here, and by no means all of the patrons came incognito. It was a place to enjoy forbidden pleasures secretly, of course, but equally a place to see and be seen in. The wealthy and the noble of all the Galaxy's worlds took considerable pride in showing off their elaborate costumes and the beauty of their companions here, for the very fact of their presence was as good as a published statement of wealth and ancestry.

Presently a flash of scarlet seen through the leaves of a passing platform caught her eye. She remembered then that she had noticed that same shocking cloak upon a young man on the stairs. It was a garment so startling that she felt more than a passing wonder about the personality of the man who would wear it. The garment had been deliberately designed to look like a waterfall of gushing blood, bright arterial scarlet that rippled from the shoulders in a cascading deluge, its colors constantly moving and changing so that one instinctively looked downward to see the scarlet stream go pouring away behind its wearer down the stairs.

Now the blood-red deluge moved fitfully between the branches of a passing arbor. The platform turned so that she could see through the arch of the entrance, and for a long moment as they moved lazily by one another she looked into the interested face of a young man with yellow curls and a short blond beard. His eyes followed her all during the leisurely passing of their platforms, and Juille suddenly sparkled behind the delicious languorous spell her drink had laid upon her. This was it! This was what she had hoped for, and not quite admitted even to herself.

A panel glowed into opaque life in the center of the table she leaned upon. The ubiquitous, inhumanly sweet voice of Cyrille murmured:

"A young man in a red cloak has just asked the privilege of speaking to the occupant of this platform. His identity is not revealed, but the occupant is assured from our records that he is of noble family and good reputation except for a casual tendency toward philandering of which the occupant is warned. He is skilled in the military arts, knows most forms of music well, enjoys athletic games, has done some composing of considerable merit. If the occupant wishes further acquaintance, press the left chair arm which will cut front repellors."

Juille almost giggled at the curious blend of chaperonage, social report and conversational guide with which the honeyed voice prefaced an informal meeting. She wondered if her own anonymous record had been presented to the man, and then decided that it would not be, without her permission.

She wondered, too, just how another woman in her place, with the background she had usurped, would probably act. After a moment of almost panicky hesitation she laid a hand upon the chair arm and leaned on it.

The other platform had evidently made a wide circle around her while the introduction was in progress. Now it swung about in front of her arbor and she could see that the red-cloaked man was leaning on his own chair in a similar position. Across the clear green gulf he called in a pleasant voice:

"May I?"

Juille inclined her dark-gold head, carefully coifed under the hooding veil. The platforms drifted closer, touched with the slightest possible jar. The young man ducked under the arbor, darkening the entrance with the swoop of his bloody cloak. It billowed out

behind him extravagantly in the little wind upon which the platforms drifted.

Juille was glowing with sudden confidence. Now she had achieved part of what she set out to do. Surely this proved her capable of competing with other women on their own unstable, mysterious ground. The magic of the shadowy gown she wore had a part in it, and the drink she had almost finished added its dangerous warmth.

After all, humanity was a strange role to Juille, not one to maintain long. The subservient planets had wheeled across the heavens for her imperial family too long. That look of intolerable pride was coming back subtly into her delicate, steely face beneath the veil that drew its shadow across her eyes.

She nodded the newcomer to a crystal chair across from her, studying him coolly from under the cobwebby veil. He was smiling at her out of very blue eyes, his teeth flashing in the short curly beard. He looked foppish, but he was a big young man, and she noticed that the cloak of running blood swung from very fine shoulders indeed. She felt a faint contempt for him—music, composing, when the man had shoulders like that! Lolling here in that outrageous cape, his beard combed to the last careful curl, oblivious to the holocaust that was rising all through the Galaxy.

She had a moment's vision of that holocaust breaking upon Cyrille, as it was sure to break very soon even this close to the sacred world of Ericon. She thought of H'vani bombs crashing through this twilight sphere in which she floated. She saw the vast tree trunk crumbling on its foundation, crashing down in ruins, its great arms combing all these drifting crystal bowers out of the green perfumed air. She thought of the power failing, the lights going out, the cries of the suddenly stricken echoing among the shattered Edens. She saw the darkness of outer space with cold stars twinkling, and the vast luminous bulk of Ericon looming up outside through the riven walls of Cyrille.

The young man did not appear to share any such premonitions of disaster. He sank into the chair she had indicated and stretched his long legs out comfortably. He had set down on the table a crystal inhaler shaped like a long flattened pitcher with its lip closed except for a tiny slit. Blue-green liquid inside swung gently to the motion of the platform.

He smiled at Juille very charmingly. In spite of herself she warmed to him a little. The charm was potent; though she scorned it, she could not wholly resist returning the smile.

"This is Cyrille at its best," he said, and gestured toward the twilit hush through which their transparent islet was floating in a long, ascending spiral. The gesture came back to include the bower's intimacy. "Maybe," he said reflectively, "the best I've ever known."

Juille gave him a remote glance under the veil.

"The best dream," he explained seriously. "That's what we come for, isn't it? Except that what we get here is much nicer than most dreams. You, for instance." The charming smile again, both repelling and attracting her. "If this were a dream, I might wake up any moment. But as it is—"

He stared at her for an instant in silence, while a little breeze rustled the leaves about them and green space swam underfoot below the transparent floor.

"You might be a princess," he went on in a voice of deliberate musing. "Or something made up out of synthetics by some magic or other—I've heard of such things on Cyrille. Maybe you have no voice. Maybe you're just made to sit there and smile and look beautiful. Is it too much to hope you're alive, too—not an android?"

Juille said to herself, "This young man is much too glib, and he certainly enjoys the sound of his own voice. But then, I enjoy it, too—"

Aloud she said nothing, but she smiled and inclined her head a little, so that

from the disturbed veil a mist of frosty lights floated out and twinkled into nothingness in the bowery gloom.

The young man stared at her, half enchanted by his own fancy, half convinced in spite of himself that she might after all be one of the fabulous androids of Cyrille, endowed with a compelling charm stronger than the charm of humans.

"If you were," he went on, "if you were born yesterday out of a matrix just to sit there and be beautiful, I wonder what we'd talk about?"

Juille decided it was time to speak. She made her voice remote and low, and said through the sparkling shadows of her veil:

"We'd talk about the worlds you know . . . you would tell me what it's like outside Cyrille."

He smiled at her delightedly. "They gave you a beautiful voice! But I'd rather show you the worlds than talk about them. What would you like to see?"

"Which do you like best?"

Egide lifted his crystal inhaler and put its slitted lip to his mouth, tilting out a few drops of the blue-green liquid within. Then he closed his eyes and let the liquor volatize upon his tongue and go expanding and rising all through his head in dizzying sweetness. He was wondering if he would have to kill this beautiful, low-voiced creature, and if so, whether he would strangle her or use a knife, or whether the little gun tucked inside his belt would be safest. He said:

"I've never been sure of that. You'll have to help me decide. If we find one beautiful enough, I'll take you there tonight." He leaned forward above the panel in the table top and spoke into it briefly. "Now watch," he said.

Juille leaned across the table, folding her arms upon its cool surface. The veil settled about her in slow, cloudy shadows, little lights sparkling among them. With their heads close together they watched pictures form and hover briefly and fade in the panel.

Their islet floated out in a long arc over the abysses of spring evening, and followed a vagrant air current back through the branches again, while they reviewed world after changing world.

"Do you know," said Egide, "that we're doing what only the emperor of Ericon could do?" He watched Juille's dim reflection in the table top, and saw her expression change sharply. He smiled. Yes, she was probably—herself. He went on, "We're making the worlds parade for our amusement. I'll be emperor and give you the one you choose. Which shall it be?"

Juille was hesitating between laughter and outraged divinity. Did the lesser races really talk like this among themselves, with disrespect even for the emperor of the Galaxy? She did not know. She had no way of guessing. She could only swallow the unintended sacrilege and pretend to play his impious little game.

"There," she said in a moment, pointing a tapered forefinger, "give me that city."

"Yorgana is yours," he told her, with a regal gesture that made his cloak sweep out in a sudden gush of blood. And he spoke again into the panel. The great swinging branches began to drift more swiftly by them as their platform picked up motion toward the giant tree trunk and the stairs.

Juille was accustomed to a certain amount of informality from her officers and advisers. She had never insisted upon the full rendition of her imperial rights, which in some cases bordered almost upon semidivinity. But she knew now for the first time that no one had ever been really at ease in her presence before.

Half a dozen times as they went up the stairs and entered a fancifully drop-shaped elevator she was on the verge of laughter or outraged dignity, or both together, at the young man's attitude toward her. No one before had ever pretended even in jest to bestow largesse upon her; no one had ever assumed the

initiative as a matter of course and told her what she was expected to do next. For the moment Juille was amused, but only, she thought, for the moment.

The real Yorgana had been in ruins a thousand years. Here in Cyrille, under the light of its three moons, it lay magically restored once more, a lovely city of canals and glimmering waterways in a night made bright as some strange-colored day by its circling moons.

They walked along the sand-paved streets, strolled over the bridges, dropped pebbles into the rippling reflections of the canals. And they talked with a certain stiffness of reserve which began to wear off imperceptibly after a while. Their range of subject matter was limited, for her companion appeared as determined to preserve his incognito as Juille was herself. So they talked of Cyrille instead, and of the many strange things it housed. They talked of the libraries of Cyrille, where the music of all recorded times lay stored, and of the strange pastime of musical levitation which was currently popular here. They speculated about the nationalities, the world origins, the rank of their fellow strollers through the oddly ghostlike city of Yorgana. They talked of the dark places of Cyrille, where beauty and terror were blended for the delectation of those who loved nightmares. But they did not talk of one another except guardedly, and any speculation on either side was never spoken aloud.

Juille was surprised at her own rather breathless enjoyment of this evening. They shared a little table on a terrace that overhung the spangled heights of the city, and they drank pungent deep-red wine, and Juille sat silently, watching the three moons of Yorgana reflecting in tiny focus in her glass while Egide said outrageously flattering things to her.

They drifted in a boat shaped like a new moon along the winding canals under balconies hung with dark flowers, and Egide sang cloyingly sweet ballads, and the night was theatrically lovely. Once he leaned toward her, making the boat rock a little, and hesitated for what seemed a very long moment, while Juille tensed herself to repel whatever advances he was about to make. She knew so little of matters like this, but she knew by instinct that this was too soon. She was both relieved and sorry when he sank back with a deep sigh, saying nothing.

Except for that one incident, insignificant as it was, Juille had no reason at all to distrust the man. But as the evening went on she found that she did distrust him. There was no logic about it. His ingratiating charm struck responsive chords in her against her own desire, but the distrust went deeper still. It was not any telepathic awareness of his surface thoughts, but an awareness of the man himself as his casual opinions revealed him. He was, she thought, too soft. His height and his easy muscular poise had nothing to do with it. She had felt gun callouses on his palm when he helped her into the boat, and she knew he was not wholly the careless fop he pretended, but too many of his casual words tonight had betrayed him. He reminded her more than once of all she disliked most in her father's attitude. She thought, before the evening ended, that she knew this young man better than he suspected, and she did not trust him. But she found his facile charm curiously disturbing.

The disturbance reached its height at the end of the evening, when they danced upon the starry black mirror of the Dullai Lake, where lessened gravity let them move with lovely long gliding steps to the strains of music which seemed to swoon extravagantly from chord to lingering chord. Juille was delightfully conscious of her gown's effect here, in the very scene that had inspired the designer to create it. She was part of the dark, drifting shadows; the clouds of dim gauze billowed out behind her, astream with vanishing stars. And the dance itself was perfection. They were

both surprised at the intoxicating rhythm with which their bodies moved together; it was like dancing in a dream of weightless flight, buoyed up on the rise and flow of music.

In this one thing they lost themselves. Neither was on guard against the other while the music carried them along, swirling them around and around in slow, lovely spirals over the starry floor. They said nothing. They did not even think. Time had suspended itself, and space was a starry void through which they moved in perfect, responsive rhythm to music that was an intoxicant more potent than wine. They had known one another forever. In this light embrace a single mind controlled them and they moved to a single rhythm. Apart, their thoughts were antagonists, but in this moment all thoughts had ceased and their bodies seemed one flesh. When the music circled intricately to its close, they danced out the last lingering echoes and came reluctantly to a halt, looking at one another in a stilled, mindless enchantment, all barriers let down, like people awakening from a dream and drenched still with the dream's impossible sweetness.

They stood in a little tree-shadowed cove on the lake shore, dark water rippling in illusion beneath their feet. They were quite alone here. The music seemed to have lifted from the surface of the lake and breathed above their heads through the stirring leaves. And Juille was suddenly aware that Egide had tensed all over and was looking down at her with a queer intentness. Light through the trees caught in his eyes and gave them an alarming brightness. He reached for her in the darkness, and there was something so grimly purposeful about the gesture that she took a step backward, wary and poised. If he had intended a kiss, there was still something frightening in his face and the brilliance of his eyes.

Perhaps even Egide had not been sure just what he intended. But after a moment of intense silence while they stood in arrested motion, staring at one another, he let his arms fall and stepped back, sighing again with a deep, exhaling breath as he had sighed in the boat.

Juille knew then that it was time to leave.

When she came out into her own quiet apartments, sunlight still gleamed changelessly upon the sea beyond her windows. It was not really night, of course. Arbitrary day and night are not observed upon Cyrille, so that though individuals come and go the crowd remains fairly constant in the public rooms. Helia looked up and gave Juille a quick, keen stare as she went through the sunny room without a word.

She stepped through blue mist into the shadowy bedroom, walking upon a mist of twinkling lights through its dimness. A delicious weariness was expanding along her limbs, and her mind felt cloudy like the cloudy, inviting bed. Deep under the lassitude a reasonless unease about that last moment on the lake stirred in her mind, but she would not follow the thought through.

She was looking back with lazy amusement upon the incredible romance of their hours together, and seeing now, without annoyance, how deftly her companion had induced the mood which drowned her now, against her own will and judgment, submerging even the strange, chilly remembrance of the moment after the dance.

Deliberately he had led her through scene after scene of the most forthright and outrageous romanticism, moonlight and starlight, flowers and rippling streams, songs of incredibly honeyed import. She felt vaguely that if the romance had been stressed a little less blatantly it might have been laughable, but the sheer cumulative weight of it had bludgeoned her senses into accepting at its full, false value all the cloying sweetness of the scenes. Toward the end, she thought, he had overreached himself. Whatever his original intention had been, whatever hers, in that one

timeless, intoxicating dance they had been caught in the same honeyed trap.

And afterward, when he reached for her with that frightening purpose and the frightening brilliance in his eyes—well, what was so alarming about a kiss? Surely it had been foolish to read anything more menacing into the gesture. She would see him again, and she would know then.

Juille realized suddenly that she had been standing quite still in the middle of the room for a long while, staring blindly at the slowly drifting chairs, reviewing the dance over and over, and the dissolving sweetness of the music and the rhythms of their motion.

She said, "Damn the man!" in a clear voice, and yawned extravagantly, and stepped through another veil of fog into the showering bath. The shadowy gown she had worn all evening melted upon her and went sluicing away under the flashing water. She was both glad and sorry to see it go.

Her dreams in the cloudy bed were lovely and disturbing.

"We've known one another three days," Juille said, "and I may as well tell you I don't like you. Wouldn't trust you out of my sight, either. Why I stay on here—"

"It's my entertainment value," Egide told her, and then rubbed the cropped curls of his beard in a thoughtful way. "Trust I don't expect. But liking, now—you surprise me. Is it the short time we've known each other?"

"Hand me a sandwich," Julie said. He pushed the picnic basket toward her over a billowing surface of clouds—curious, she thought, how the cloud motif had haunted her days here—and remarked:

"I can manage the time angle if that's all that bothers you. Wait." He took up a luminous disk lying beside him and murmured into it. After a moment the clear sunlight that bathed them began to mellow to an afternoon richness.

They were lunching in shameless, childlike fantasy upon a cloud that drifted across the face of a nameless planet. Any pleasure that the mind can devise the body may enjoy in Cyrille. Its arts can expand the walls of a room so that sunlit space seems to reach out toward infinity all around. From the cumulus billows they rode upon today they could lean to watch the shadow of their cloud moving over the soft-green contours of the turning world below, very far down. For the present all gravity and all logic had released them, and in this simple fulfillment of the dream every child knows, Juille let all her past float away. And she had sensed in her companion a similar release. He had been almost irresistibly charming in these careless days, as if, like her, he had deliberately shed all responsibilities and all remembrance of past duties, and had interest now only in being charming and being with her. The three days had affected them both. Juille found she could sit here now and listen to her companion's nonsense with very little recollection that she had been and must be again the princess of Ericon. There was no shadow over the present. She would not look beyond it.

She could even accept without much disbelief the fantastic thing Egide was accomplishing now, and when he said, "Look—not even the emperor could do this!" no shadow crossed her face. He was not watching for such signals now. He had no need to.

Over the world below them evening had begun to move. The air dimmed, and the great soft billows of their cloud flushed pink above the darkening land below. A star broke out in the sky, and another. It was night, full of flaming constellations in the velvet dark. And then dawn began to glow beyond a distant mountain range. The air sparkled; dew was bright upon the face of the turning world.

"See?" said Egide. "Tomorrow!"

Juille smiled at him indulgently, watching the morning move swiftly

across the planet. He made no move to halt its progress and the shadows lengthened fast below them as the day declined once more. A fabulous sunset enveloped them in purple and pink and gold, and the sky was green, and violet, and then velvet black. The cycle repeated itself, faster and faster. Evening and night and dawn, noon, evening again.

When a week of evanescent days had flashed over them, Egide spoke into the disk and the circling progress slowed down to normal. He grinned at her.

"Now you've known me about ten days," he said. "Don't I improve with acquaintance? Do you feel you know me any better?"

"I've aged too fast to tell." She smiled. "What fun it is, being a god." She rose on an elbow and looked down over the edge of the cloud. "Let there be cities down there," she said, and waved a careless arm along which bright blue water appeared to ripple, breaking into a foam of bubbles about the wrist.

"Cities there are." Egide snapped his fingers and over the horizon a twinkle of lights began to lift. "Shall we have evening, to watch them shine?" Juille nodded, and the air dimmed about them once more. She held up a blue-

sheathed arm to watch the light fading along the liquid surfaces of her sleeve.

They had sailed yesterday under leaning white canvas over a windy sea, and Egide had sent the dress designer to Juille this morning with a new idea. So today she wore a gown of changing blues and greens that flowed like sea water as his cloak had once flowed like blood. An immaculate foam of bubbles rippled about her feet.

Almost every waking hour of the past three days they had spent together. And Juille had almost forgotten that once, on their first meeting, some look about him had frightened her. In her sight the look was not repeated. Behind her back—perhaps. But the three days had been unshadowed, full of laughter and light talk and the entertainment Cyrille alone knew how to provide. They still had no names for one another, but restrain had long gone from their conversation. Juille had even let her first mistrust of him sink into temporary abeyance, so that only occasionally some passing word of his evoked it again.

Just now something else evoked it. At any other place and time there would probably have been real annoyance in her voice, but she spoke today with gentle lassitude.

"You have a decadent mind," she told him. "I've often noticed that. Look—even your clothes show it."

Egide glanced down with a certain complacence. To all appearance he was cloaked today in long blond hair that rippled rather horribly from his shoulders. Beneath it his fine muscular body was sheathed in wetly shining blue satin the exact color of his eyes, and of the same translucent texture.

"Oh, there's a lot I haven't tried yet," he assured her. "Rain, fire— By the way, how would you like a rainstorm over your cities?"

Juille dismissed her shadow of distaste and leaned upon one elbow, peering down.

"Not now. Look. How pretty they are!"

Dusk was purpling over the world below, and the cities twinkled in great spangled clusters of light that shook enchantingly all over the face of the darkening planet as the air quivered and danced between them.

"Look up," murmured Egide, his voice hushed a little in the growing hush of their synthetic night. "I wonder if the stars really look like that, anywhere in the Galaxy."

There were great shining rosettes of light, shimmering from red to blue to white again in patternless rhythms against a sky of thick black velvet. And as they leaned back upon the cloud to watch, a very distant music began to breathe above them among the stars.

It made Juille think of the music upon the lake to which they had danced so beautifully, and in a moment she knew she must sit up and say something to break the gathering magic in the air. She did not trust that magic. She had been careful not to let another moment like the moment of the dance engulf them. She mistrusted it both for its own sake and for the sake of what barriers it might let down in her. The thought of Egide's embrace was frightening, in some obscure, illogical way she did not try to fathom. In just a moment she would break the gathering spell.

The music sank slowly toward them in intangible festoons of sweetness. The stars blazed like great fiery roses against the dark. They were floating through space upon that most lulling and deeply remembered of all motions—the gentle swing of the cradle. Their cloud rocked them above the turning world and the stars poured down enchantment. And now it was too late to speak.

The same dissolving magic was upon them as their cloud went drifting slowly among the stars. All reality was draining away. Juille heard the long breath her companion drew, and saw the stars blotted out by the silhouette of his curly head and broad cloaked shoulders lean-

ing above her. And suddenly, something about their tensed outline roused Juille from her lovely lassitude. She sat up abruptly, terror flashing over her. In this swimming darkness his face and the brilliance of his eyes was veiled, but she could see his arms reach out for her and all the latent fear came back with a rush.

But before she could move he had her. His strength was surprising. He held her struggles quiet in one arm, and she felt the calloused palm of the other hand fitting itself gently about her throat. For one unreasoning moment, in the face of all logic, she knew what he intended. In her mind she could already feel that hand tightening with its terrible gentleness until the night swam red around her as she strangled. If this was murder, she must forestall it, and her body knew the way. What she did was pure instinct, unguided by reason. She relaxed in his arms with a little sigh, letting her eyes close softly. When she felt his grip begin to loosen just a bit she got one arm free and laid it about his neck.

What happened then must have amazed them both if their minds had been capable of surprise. But their minds were not functioning now. As in the moment of the dance, all antagonisms of thought had ceased without warning, and it was the flesh instead that governed and responded. Juille felt one dim warning stir far back in her brain, drowned beneath the immediate and urgent delight of his expert kisses, but she would not think of it now. She could not. Later, perhaps, she would remember. Much later. Not now.

The burning stars had paled a little when she noticed them again. Some warm, light fabric covered her—that cloak of rippling yellow hair. Her head was pillowed upon the cumulous couch and dawn was beginning to freshen the air, though no light yet glowed above the horizon. She could see her companion darkly silhouetted against the stars as he sat upon a billow of cloud a little distance away, resting his chin on his fist and staring downward.

Juille pushed the clouds into a support behind her and leaned upon it, watching him, formless thoughts swirling in her mind. Presently his head turned toward her. In this warm darkness his face was barely visible, lighted by the dimming stars. She could see starlight reflecting in the mirrory surfaces of his tunic and glancing down, she caught the same reflections broken among the water ripples of her own skirt.

They looked at one another in silence, for a long while.

Juille woke in the dimness of her apartment, upon her bed of cloud, and lay for a few moments letting the fog of her dreams clear slowly away, like mist dispelling. Then she sat up abruptly, knowing that after all it had been no dream. But when she looked back upon the bewildering complexity of what had happened on the cloud, she saw no rhyme or reason to it. The dimness was suddenly smothering about her.

"Light, light!" she called pettishly, brushing at the room's darkness with both hands, as if she could clear it away like a curtain. And someone waiting beyond the call panel of the bed must have heard—it was strange to wonder how much those listeners heard and watched and knew—for the darkness paled and a rosy glow of morning flooded the room.

Helia stood in the doorway, the little *llar* preening itself upon her shoulder. Her weathered face showed no emotion, but there was a certain gentleness in the look she bent upon her mistress.

"Did I sleep long?" Juille asked.

Helia nodded. The *llar* unclasped its flexible pads and plucked at her dark hair, beginning very swiftly and deftly to braid it between quick, multiple fingers like the fingers of sea-anemones. Helia stroked the little animal and it snapped sidewise with razory teeth and

sprang to the floor with one fluid motion of grace like flight.

"Any calls?"

"Not yet, highness." Helia's grave stare was almost disconcerting.

Juille said, "Go away," and then sat clasping her knees and frowning. In the mirrors of the dressing alcove she could see herself, the fine, hard delicacy of her face looking chill even in this rosy light. She felt chill.

What had happened last night was too complex to understand. Would his hand have tightened about her throat if she had not taken the one way to prevent it? Or was the heavy touch a caress? What possible reason, she wondered, could the man have for wanting to strangle her? But if he had meant to, and if he had let her seduce him from his purpose—why, that was no more than she might have expected from him. The old mistrust, the old dislike, came back in a flood. His decadent clothes betrayed him, she thought, and his sensitive, sensuous mouth betrayed him, and the careless opinions he had expressed too often. He was a man who would always make exceptions; he would always be pulled two ways between sentiment and duty. If it had not really happened last night, then it would happen when the first test came. No, she did not respect him at all—but a dangerous weakness loosened all her muscles as she leaned here remembering that stunning of the senses which Cyrille's false glamour could work upon her.

Everything about her was an illusion, she realized with sudden cold insight that no Cyrillian art could dispel. But it was an illusion so dangerous that the very integrity of the mind could be enchanted by it, the keen edge of reason dulled. And she felt frightened as no possible physical threat could frighten her. When the amazon discards a woman's gentleness of body and mind she is almost certain to make the discard complete. Juille thought she was not asking too much of an intellectual equal when she expected from him the same cold, unswerving devotion to a principle that was the foundation of her own life. Egide would never have it.

But she knew she had better not see that disarming face of his any more. Not even to solve for herself the perplexing question of his intention last night. Better to let it slide. Better to go now and forget everything that had happened upon the drifting cloud, beneath those burning stars. Now she knew the shifting, unstable ground upon which women walk; she would not tread it again. She sat up.

"Helia," she called through the fog-veiled doorway. "Helia, send for our ship. We're starting back to Ericon—now."

Egide sat clasping one knee, leaning his head back on the window frame and looking out over a field of pale flowers that nodded in the rays of tricolored suns. He did not look at Jair. His cloak today was a mantle of licking flame.

"Well?" said Jair, the boom in his voice under close control. No answer. Jair looked down reflectively at his own clasped hands. He tightened them, watching the great muscles writhe along his forearms under the red-heat haze of hair. "Has she recognized you?" he asked.

Egide picked up the glass beside him and spun it thoughtfully. Rainbows flickered across the floor as sunlight struck it. He did not answer for a moment. Then he said in a detached voice, "That. It's a false alarm, Jair."

"A false alarm!" Jair's voice made the glass shiver in Egide's hand. The muscles crawled spectacularly along his arms as his great fists clenched. "She *isn't* the emperor's daughter?"

Egide flashed him a clear, blue glance, and grinned.

"Never mind," he said. "You don't have to impress me."

There was a certain blankness in Jair's reddish gaze that Egide recognized with

an odd, illogical shiver. He said, "Sometimes I forget how good you are at your job, Jair. And sometimes it surprises me—"

"You mean," Jair said, and even in restraint his voice made the glass vibrate, "we've wasted all this time and money—"

"Well, no, I wouldn't call it wasted. I've had a very pleasant time. But we'd better leave today. It wasn't the emperor's daughter."

Rain danced from the high curve of the crystal wall and went streaming in long, irregular freshets down the sides of the glass room, veiling Ericon's soft-green hills outside. Within, firelight wavered beneath a great white mantelpiece carved with the mythological loves of logs and goddesses worshiped a long time ago by another race.

The rain and the firelight and the silence of the people in the room should have made it a peaceful hour here under the high glass curve of the walls. But over the mantelpiece was a communicator panel that was like an open window upon death and disaster. Every man in the room leaned forward tensely in his chair, eyes upon the haggard, blood-streaked face that spoke to them hoarsely through the panel.

The voice carried over long-lapsed time and the unfathomable dark distances that stretch between worlds. The man who called was probably dead now; he spoke from another planet that circled far outside the orbit of Ericon.

"Dunnar has just surrendered to the H'vani," he was telling them in a tired, emotionless voice that sounded as if it had been shouting a little while ago, though it was not shouting now. "We hadn't a chance. They came down in one wave after another all around the planet, bombing everything that moved. They landed troops on the night side and kept raining them down all around the world as the dark belt moved on. The day side got the bombing heaviest, beginning in the dawn belt and moving on around with the planet. They had their own men planted everywhere, ready to rise. Smothered our antiaircraft from the ground. Much of it must have been manned by their spies. Some of our interceptor craft were shot down deliberately from below. Watch out for H'vani men planted—"

Behind the speaker a flaming rafter fell into the range of the communicator screen and crashed somewhere near, out of sight. The man glanced back at it, then leaned to the screen and spoke on in a voice of quickened urgency. Above the crackling of the flames, other voices shouted in the background, coming nearer. There was the noise of what might be gunfire, and another sliding crash as more beams fell. The speaker was shouting now, his voice almost drowned out in the rising uproar of Dunnar's destruction.

"The weapon—" he called above the crashing. "No chance for us . . . came too fast— We've smuggled out one man . . . fast ship . . . bringing a model to you. Watch for him. They'll follow—" A blazing beam came down between his face and the screen. Through a thin curtain of fire he mouthed at them some last urgent message of which only a word or two came through. "Weapon . . . might save the Galaxy . . . give them a blast for Dunnar—" And then the fire blazed up to blot out face and voice alike, and Dunnar's ruined image faded from the screen.

For a moment after it was gone, the warm firelight flickering through the room seemed horrible, a parody of the flames that had engulfed the spokesman in the panel. The crash of burning Dunnar still echoed through the quiet, and the hoarse, despairing voice of the last man. Then the emperor said in a flattened tone,

"I wanted you all to hear it a second time, before we go out to meet the ship."

Juille uncrossed her long bare legs and leaned forward, scowling under the crown of dark-gold braids.

"We're ready for them," she said

grimly. "That weapon wasn't quite finished, though."

"That's why they struck when they did," murmured an amazon officer beside her. "Beautiful timing—beautiful! Almost a split-second attack, between the finish of the weapon and the mounting of it."

There was silence in the room. The opening blow had been struck of a battle that must engulf every world in the Galaxy before it ended. No one spoke for a while, but the air was heavy with unvoiced thoughts and most of them were grim.

The emperor put out a hand to the game set up on a table before him and moved a bead along a curve of colored wire. It was a game of interplanetary warfare, played like chess, though the men moved both vertically and horizontally on wires like an abacus. Firelight glinted on the colored beads carved like ships and worlds.

"You'll lose your master planet unless you bring up the blues," Juille told him absently.

"This is a solitaire game," said the emperor. "Mind your own business."

The rain blew pattering against the glass and the fire crackled softly. Juille's *llar* came out from beneath her chair, stretching elaborately, yawning to show a curved pink tongue. The crackling of the logs was a whisper of the terrible roaring crackle they had heard across the void from Dunnar's collapsing cities. They would hear it again from other worlds before the holocaust ended that had begun almost before their eyes here. Perhaps they might listen to it in this very room, on the sacred soil of Ericon itself. Other dynasties had crumbled upon Ericon before theirs.

"Why don't they report again on that ship?" the emperor said irritably, flipping a carved bead around a curve with too much force. Juille, seeing its course, automatically opened her mouth to object, and closed it again without saying anything. The *llar* swung itself up on the emperor's table with soundless ease and put out its webby-fingered paw to move two beads precisely along the notched wire.

"Ah, so you know Thori's Gambit, little friend?" The emperor's tired face creased in a smile as the *llar's* round-eyed stare met his through the maze of painted wires. He moved a translucent red bead between the two the *llar* had shifted. "I wish I could be sure that was an accident. How much does a *llar* really know?"

The little animal put its head down, rolled up its strange, shining eyes and wriggled all over, like a playful kitten. But when the emperor stretched out a hand to stroke it, the *llar* turned deftly away and flowed down over the table edge onto the floor with a grace that was almost frightening in its boneless ease.

The screen glowed above the fireplace. Everyone looked up, even the *llar*. An expressionless face announced in expressionless tones:

"Escaping Dunnar ship approaching landing field from space. Three enemy pursuit ships have succeeded in passing the Ericon space guard and still survive."

The emperor got up stiffly. "Come along," he said. "We'll watch."

They came out in a window-walled room above the landing field. A fine mist blew in through the openings, sweet with the fragrance of the wet green hills beyond. The clean smell of wet concrete rose from the broad, brown expanse below, where the small figures of attendants dashed about excitedly in preparation for the landing.

One inner wall of the room was a screen upon which they could all see now what had been taking place overhead, above the layers of rain cloud. The emperor sat down without taking his eyes from the screen. Juille crossed her arms on the high back of his chair and watching, too, ringing one spur in a half-unconscious, continuing jingle. Everyone else was silent, standing respectfully

back, and the sound of breathing was loud in the quiet.

On the screen they could see how the tiny black ship from Dunnar had cut its rockets and hurled itself headlong into the gravitational embrace of Ericon, swinging around the planet to subdue the speed it had not dared slacken in space. Behind it, still in suicidal pursuit, the three H'vani ships flamed on. They had escaped the space guard only because of their smallness and mobility, which meant that the range of their weapons was too limited to do much damage at a distance. But they were cutting down the space between them and their quarry, and the race was close.

"But they'll have to turn back now," breathed Juille, gripping the chair-back. "They won't dare . . . look, there go our interceptors."

The screen divided itself in half with an oddly amoebalike motion, one section showing the swift rise of Ericon's interceptors while the other mirrored the orbit of the newcomer as it swung around the Control Planet still at dangerous speed. It was curious to think of the plunge into circumscribed space time which that ship was just now making as it emerged from deep space where neither time nor distance have real meaning. The fugitive had flashed through morning and noon and night, and come around the world into dawn again, and so into the misty forenoon above the watchers.

Now they saw it put out wings upon the thin upper air, like a diver suddenly stretching out his arms, and come coasting down upon their sustaining surfaces in a great sweeping spiral above the field.

"There goes one of 'em," the emperor said in a satisfied voice. Juille glanced back at the upper screen and saw one of the pursuers from space twisting downward, its black sides beginning to glow already from the friction of that thin high air. It dropped incandescently out of the picture, which was following the other two ships in their headlong flight. Their own sheer speed gave them an advantage. They were drawing away from the interceptors, taking full and suicidal advantage of the fact that upon Ericon immutable law forbids any aircraft to fly at will over the surface of the sacred planet.

"They won't dare—" Juille told herself under her breath, leaning forward. Behind her a rustle and an indrawn breath all through the room spoke the same thought. For the enemy ships, winged now and swinging down through the heavier air in pursuit of their escaping prey, were being driven farther and farther off the prescribed course beyond which all air traffic is forbidden.

The interceptor ships were sheering away. Juille could picture the frantic indecision of their commanders, torn between the necessity to destroy the invaders and the still more urgent necessity not to transgress an immemorial law laid down by powers even higher than the Galactic emperor's.

In the lower half of the screen, the single-winged ship had leveled off for a landing. Someone outside shouted, and for a moment all eyes turned to the windows and the broad concrete field outside.

Down out of the misty clouds came a duplicate of the shape upon the screen. In silence, the black-winged ship came swooping through the rain, lower and lower over the heads of running attendants. It hovered to a halt and sank down gently upon its own reflection in the wet concrete. And upon the screen behind them, the same scene took place in faithful duplicate.

Indeed, the image was more faithful than the reality, for at this distance the naked eye could see only a swarming of tiny figures around the newly arrived ship. The emperor called, "Closer," and turned back to the screen.

The scene below rushed into a close-up upon the wall, swooping toward them with dizzy speed. Now they could watch the opening slide into view upon

the ship's side, and the man who ducked out and stepped down upon the brown concrete in the drizzle of misting rain. It beaded his shoulders with moisture in the first few moments. He blinked the rain out of his eyes and looked about calmly, not in the least hurried or alarmed.

The envoy from Dunnar was an astonishing figure, so tall and so very thin that at first glance he looked like a scarecrow shape beside his vessel. But when he turned to face the crowding attendants and the screen, he moved with a grace and sureness that had something unmistakably regal about it. He wore his plain black overall with a remarkable sort of elegance, and his own quiet sureness seemed to throw everyone else on the field out of focus. The muscular attendants looked squat and brutish by contrast with his scarecrow height; the well-dressed officials moving forward to receive him were vulgar beside his overalled simplicity.

He looked up into the featureless clouds where his pursuers and his defenders still waged an invisible battle. All around him the crowding men looked up, too, futilely. Only in the control room, where the emperor and his staff sat, did the eyes that followed that lifted gaze see what was happening overhead.

And now, as their gaze went back to the neglected drama above, a horrified fascination seized upon every watcher in the room. Even Juille's unconsciously jingling spur was silent. She felt the sudden clutch of small fingery paws, but she did not glance down as the *llar* came swarming up her leg to a vantage point upon her shoulder. She felt its tiny, quick breathing against her cheek as it, too, stared.

Not within the memory of any living man had the law of the Ancients been violated which forbade air traffic over Ericon. Obedience to those laws had been rooted as deeply as obedience to the law of gravity. There were violations, of course; tradition said all such violators died instantly.

Juille watched the first such episode in modern times with a catch in her breath and her throat closed from tremendous excitement. She wondered if everyone else in the room felt the same half-guilty anticipation, the impious wonder.

For there was a wide gap now between the enemy ships and the Ericon interceptors. It had been a suicide pursuit anyhow, for the H'vani. They were certainly doomed. And they were taking one last headlong chance in the hope of destroying their quarry before they were themselves destroyed. The interceptors had forced them by now far out of the narrow traffic lane whose invisible boundaries should have been so rigid. For the first time in living memory, ships spread their wings upon the forbidden air of Ericon.

They were swooping down in a long dive now, coming fast through the clouds toward the landing field where the newcomer stood unconcernedly staring up into the mists that hid them.

"They're going to make it—they are!" Juille whispered to herself, gripping the chair-back with aching fingers.

Out on the landing field, crews were manning the antiaircraft guns in frantic haste, sheer incredulity numbing their fingers as they worked. No one had ever quite believed that these guns could be needed. They were meant for defense against ships attacking from directly overhead, in the prescribed landing lane from space. Even that possibility had seemed absurd. But now—

"Get that fool off the field!" the emperor roared suddenly, making everyone jump. "Get him off! They'll be here in a minute. Look at them come!"

Down through the mist the two surviving ships came driving through air that shrieked away from their wings. Men were scattering wildly from the field. Loud-speakers roared at the Dunnarian to take shelter. He stood imperturbably, tall and thin and quiet, looking up into the clouds.

And for a timeless moment a faith

rooted millenniums deep in human minds shook terribly as the Ancients were defied—and stayed their hand. No peril to the defenseless envoy on the field—though he carried a secret that might save their race—moved the watchers half so deeply as what they were seeing now. The ships dived on through the screaming air, and behind them clouds boiled furiously in the vortex of their passage.

Did the Ancients really exist at all? Or had all those legends been legends only? The breath of every watcher paused in his throat as he waited the answer.

But no one saw the vengeance the Ancients took. All over the planet shaken watchers followed the action upon their screens—but no human eye saw the blow fall.

One moment, the black ships were screaming down through grayness; the next instant, without warning, there came a soundless flash like the flash of sunlight glancing from some colossal mirror, blinding every eye that watched.

There was no sound. The riven air screamed itself quiet. When those who stared could see again out of dazzled eyes, nothing remained but the vortex of clouds split by the plunging ships. And even the vortex was quieting now. Of the ships, nothing remained. For the first time in living memory, the Ancients had struck, invisibly before a world of watchers, in the deadly dignity of silence.

And all over Ericon, a world-wide sigh of relief went up wordlessly.

In the utter quiet, the envoy moved forward at last across the wet concrete. Overhead, that vast boiling of clouds had cleared a space for the rare blue sky to shine. The reflecting pavement turned suddenly blue and glorious as he stalked across it with his long scarecrow stride. Awed eyes watched him come, a black figure moving with strange, smooth elegance over the blinding blueness of the sky's reflection.

"Stop that jingling and come along, Juille," the emperor said at last in the silence, rising as stiffly as he had sat down. "We'll see him in my library, alone. Wake up, girl! Come along."

"—And the weapon?" said the emperor eagerly, leaning forward between the arms of a great carved chair before his library fire.

No one could have guessed from the look of the man before him that he had come straight from a desperate flight and an awesome rescue, or that he carried a cargo so precious a whole Galaxy's fate might depend on it. He was the last Dunnarian left to speak for his ruined world, but no emotion at all showed upon his cool, impassive face.

"I'll want my men to look over the weapon at once," the emperor went on. "It's in your ship?"

"Highness, I brought no weapon."

"No weapon!"

Juille watched a familiar thunderous look gather upon her father's face, but the storm did not quite break and Juille smiled to herself, understanding why. It was difficult to treat this man like an ordinary person. His appearance was extraordinary enough, without that recollection of an hour ago which had struck a whole world into reverent silence.

This was the man who had stood unafraid beneath the plunge of the enemy ships, unprotected, so confident in the power of the Ancients that he had not wavered even when death seemed certain. This was the man above whom the Ancients had for the first time in living memory put out their hands and wrought a miracle. He had, of course, been only the occasion, certainly not the cause. But he was haloed still in the reflected glory of that moment which was already taking its place in legend.

"I have no weapon," he said again, meeting the emperor's glare with an imperturbable gaze from his great, luminous eyes that never winked. "We dared not risk letting a model fall into

H'vani hands, highness. I will have to make one for you."

Juille saw her father settle back, mollified, perhaps a bit relieved that he need not thunder at this remarkable and disconcerting man. Perhaps it had occurred to the emperor, as it had to Juille, that immortality which might outlast their own had already descended upon the envoy's smooth, narrow-skulled head. Unborn generations would repeat in awe the story of his experience today.

She stared frankly at the man, wondering very much from what ancient line he sprang and what knowledge lay behind the strange, thin face with its falcon nose and its large, transparent gray eyes and the mouth that looked at once cruel and oversensitive. Seen this near, he seemed even taller and thinner and more oddly scarecrowlike than on the screen, yet the extraordinary, fastidious precision of his motion made every other man alive seem crude and clumsy. He had an ageless face, and a poise that seemed bred into the very genes of his ancestors. Juille had a glancing, vivid recollection of Cyrille—for a moment she was drifting on a cloud again, and a young man cloaked in flowing yellow curls bending above her—and she thought wryly how much he would have envied this Dunnarian's unstudied elegance. Even the stained overall, thus worn, looked like some fashion a Galactic prince had just set for the capitals of the worlds to copy.

"You'll have to get to work immediately," the emperor's voice recalled her to the urgent present. "We must have a model of the weapon at once. Too bad the H'vani timed their attack so well. In a few days more you might have fought them off with it, eh?"

The Dunnarian shook his narrow, bird-shaped head gravely.

"Our men never succeeded in expanding the scope of the weapon that much, highness. It remains a weapon for the individual, against the individual, but within that scope I believe it's the most effective thing ever made."

"A delayed-action killing, isn't it?" Juille said.

The luminous eyes turned to her. There was an infinite quietness in their stare, curiously at odds with the man's words.

"It is, highness. That gives it a strong psychological threat value, as well as a physical one. With every other comparable weapon, its operator has to sight and fire while the enemy is exposed to view. With the new one, a man may be killed not only at any distance, but at any time, once its sight has been fixed upon him. A sort of photograph of the victim's brain pattern is snapped, and he is doomed from that moment, though you may not choose to pull the trigger for many days. Within certain limits the weapon remains focused upon him, figuratively speaking, until it is discharged. He will be unable to travel far enough to escape it, and no hiding place can save him."

"Like a fuse," Juille murmured. "An invisible fuse, long enough to follow him wherever he goes, and you can light it when you choose. Oh, very nice! It's easily portable, I suppose?"

"The weapon itself is a bulky machine which must be set up in some impregnable position, perhaps sealed in against possible bombardment. But the focusing instrument is a small double lens in a frame. It has a slightly telescopic property. Once a man is centered in the cross hairs and a trigger sprung, he's your victim whenever you spring the second trigger on the lens and touch off his particular pattern in the central machine."

The emperor put his fingertips together and stared at them, shaking his head.

"It's a treacherous thing," he said. "The ultimate refinement of a stab in the back, eh? I suppose the victim can't tell if he's been spotted?"

"Probably the victim never does know, highness. Death is almost instantaneous."

The emperor shook his head again. "Personally," he said, "I don't like it. But I can see why the H'vani wiped out a world trying to get it away from us. As you say, the psychological value of the thing is tremendous, once they know what they're up against."

Juille laughed, a short, triumphant sound. "*I* like it," she said. "I'm not squeamish. Think of it, father! We can send armed spies into their bases to snap their leaders, and wait until the height of battle to pick them off. Imagine the effect during some complicated maneuver if all the leaders fell dead simultaneously! And that's saying nothing of how the leaders themselves will feel, knowing they're walking dead men, doomed the moment they step into a responsible position and start giving orders. Oh, I do like it!"

Her father nodded, frowning. "Once it's known," he said, "once it's actually proved in combat, I should think every H'vani officer with any responsibility would become either a reckless fatalist or a nervous wreck. It isn't so bad to be killed outright—every soldier knows that can happen, and there's an end of it. But to know the assassin will strike inevitably at the high point of your responsibility, when thousands of lives depend on yours and the whole outcome of a battle may hinge on what you do—This ought to cause the most profound psychological reactions all along the line in any army the weapon's used against."

Juille took a short turn about the room, spurs tinkling, and came back with shining violet eyes.

"Do you know what we've got here?" she demanded. "It's something so new it almost frightens me. Not just the weapon—but the principle behind it. It's the only new thing, really, since cavemen led off the procession of warfare with the bow and arrow. From that time forward, weapons have been increasing in range and scope and volume. The whole story of military warfare's been a seesaw between defense and offense—new method of attack, new defense against it, stalemate, then a newer weapon that kills more people quicker. But now—" She laughed exultantly. "Don't you see? This is a complete rightabout-face. Ever since the beginning of time, all martial invention's been forging ahead in one direction only, toward bigger and bigger weapons with greater range and scope. Men's minds are trained to think in those terms only. But with this new thing, we're flashing back in the other direction entirely, turning their flank, smashing them in a vulnerable spot left absolutely unprotected all this while. Their minds won't even be able to cope with it or devise a defense. People just don't think in terms like that."

The emperor looked at her thoughtfully, stroking his beard. The envoy's great, translucent eyes dwelt upon her animated face with an impersonal remoteness.

"See it?" Juille demanded. "Now we can strike them where they least expect it. We're back at the very beginning, even before the sword or the club. It's the individual we attack now. This is a weapon as terrible as anything that wipes out cities, but aimed at the other end of the scale of offense—the individual himself. Each man alone, in personal danger of a doom that's picked him out from all the rest and will follow him wherever he goes. This attacks the mind as well as the body. It's like a germ of terror that can eat a man's morale out and leave his body intact. He won't trust himself or his leader. And do you know the only possible defense?"

She struck her hands together and her voice almost crowed with triumph.

"Individual responsibility. The breakup of an integrated war machine. No one can depend on anyone else for anything, once our weapon's in action. They'll have to throw out all their elaborate maneuvers and all their training and start again from scratch. Each man for himself. An army of guerrillas. Ut-

terly reckless, of course, fatalistic to the last degree. But I don't see how they can hope to conduct space warfare with every man in the army independent of every other man. It'll win the war for us, father!"

The emperor drummed his fingers on the table. "You may be right," he conceded. "If we can keep it for ourselves, that is. But if anyone stole it—"

"Who else knows how to build the machine?" Juille demanded of the Dunnarian.

"No one, highness. There were few of us at the beginning, and I saw all my coworkers die. The knowledge is quite safe so far, with us."

Juille bent upon him a curiously cold, violet stare. The grave, gray eyes met it without a flicker, though he must have known what passed through her mind. Artisans who create the unique for jealous emperors are notoriously short-lived, and in this case the need for uniqueness went far beyond petty jealousy.

"You'll want a constant guard," Juille told the man thoughtfully. "And you'll have to work fast."

The Dunnarian bowed silently as the emperor waved a dismissing hand. He looked more than ever falconlike for a moment, and as he turned his head and Juille saw the narrow skull and the beaked nose outlined, she wondered how he could seem so birdlike and yet so smoothly poised, for birds are creatures of small, nervous motions.

Then she remembered that before the bird came the snake. It was the snake behind the falcon that epitomized this man's smooth gestures, his elegance, his quiet, lidless stare.

In another part of the palace a figure slipped quietly and unseen out of a curtained window. He dropped to the dark grass of a garden and, moving with the sureness of one who has come this way many times before, went out through an unguarded postern and through a band of trees dripping with rain that flashed in the lights behind him.

Quickly and silently through the rustling silence of the night he moved away, leaving the turmoil of the palace behind him, where news of the ruin of world after world flamed across the luminous screens that pictured their destruction.

He went disdainfully through the dark, picking his way with delicate steps. He knew the path so well that no one challenged him, no one saw the dark figure slipping from shadow to shadow. He had a long way to go, but he knew every step of it, even in the dark.

He was tired when he came to the far end of the journey, for it had been a long way to come on foot. In the end it was intricate, too, because he had to enter by a hidden way.

But the end was reward enough for all his weariness and secrecy, as he had known it would be. Indeed, he knew and loved each step of the path because it brought him nearer this goal. He stood in a dark archway at the end of the journey, and looked out over the low rooftops of the city of his people, glittering with warm, soft lights through curtained windows. No two curtains were of quite the same shade, nor were the windows shaped alike at all, so that the city glowed with myriad flowery shapes, like a lighted garden. His heart swelled with the knowledge that he was at home again, that the city was his and he the city's. He no longer moved stealthily as he went down the slope of sand toward the sandy streets before him.

There were few abroad at this hour, but those he passed knew him and exchanged with him the reserved formula of greeting behind which lay a deep, sure affection between individuals for the sake of the group itself—a feeling almost indescribable to anyone unfamiliar with such a community as this.

He went along the sand-padded street silently, straight for the house where his friends awaited him. Reserve was strongly rooted in them all, and their meeting betrayed no emotional unbalance, but common purpose and common

danger had welded them into a group so close and strong that words were scarcely necessary among them.

Still, when he was refreshed and relaxed, he could not help voicing the dominant emotion which had harried him all the way here.

"I wish it were over!" he sighed. "I left them listening to the news of their own destruction, and making noises about it. Ericon will be a better world when the last of them dies."

"A better place for us, I hope," one of the others said. "Will it be soon?"

"I think so, don't you? I think they're finished now, if they only knew it."

"They stand at a very definite crisis," said someone else, and glanced around the group with grave, affectionate eyes. "They can still save themselves—perhaps. There's time for it, if they only knew the way. Such a simple way, too. Some of them see it, but I don't think they'll have the chance to try."

"They're doomed," the newcomer declared in his soft voice. "I know them too well. Poor ignorant, blundering creatures." He hesitated. "I almost feel pity sometimes, watching them. But they've had their turn, and the sooner they finish the better. We've waited so long—"

"Would you help them if you could?" asked someone.

"If it weren't for us—perhaps. At heart they mean well. But they're muddled beyond all hope now, and I can't believe anything could straighten them out. Think how long we've waited—"

"Think of *Their* promise," murmured a voice in the background.

"It wasn't a flat promise, remember," someone else warned cautiously. "It was contingent, you know. They haven't failed yet. If this war turns in the right direction, they still have their chance, and we may have to begin our waiting all over again."

"They'll miss the chance," the newcomer said, half exultantly and half in reluctant pity. "I know them too well."

The officers' lounge in one of the tower tops was roofed and walled in glass, against which gusts of storming rain beat fitfully now, out of a purple sky. Ericon is so much a world of rain that all its architecture is designed to take advantage of rain's beauty, much like solariums on other worlds.

Today the lounge was crowded, and there was a murmur of grave undertones beneath the voice of the news screen that filled one wall. It rolled out the toll of ruined cities and silenced worlds. All over the Galaxy, insurrection was spreading inward toward Ericon like a plague from the rotting fringes of the empire. The imperial cities were going down like ninepins on world after crashing world.

"They're slowing up a bit, though," Juille said thoughtfully. "You know, I believe they had to strike sooner than they meant to, because of that weapon from Dunnar." She nodded at the envoy from that now voiceless planet, who sat in a deep chair beside her, long legs crossed, long fingertips interlaced, his lidless stare upon the screen that covered one wall of the room. Unobtrusively his bodyguard leaned upon the wall behind him.

Around them sat Juille's staff of officers, most of them young, many of them women, who among them divided most of the power of the empire today. Helia leaned across the back of her chair, the *llar* on her shoulder preening its sleek sides with hands like fingery starfish.

"You're right about that, highness," remarked a grim-faced woman in a plumed helmet. "They're definitely slowing down. But the best we can hope for now, I think, is the striking of some balance. We can fall into a deadlock—beyond that we can't hope to pass just now."

"There are worse things than deadlocks," Juille told her. "Wait till the weapon's finished! But if my father's conference this afternoon comes to anything—" She slapped the chair arms

angrily. "If it should, I think the whole Galaxy's lost."

"The emperor, highness, would call it lost if the conference fails." The man from Dunnar turned his grave, luminous eyes upon her.

"I won't sit down to a peace conference with those bloody savages," Juille declared fiercely. "Why they ever agreed to a conference I can't understand, but there's something behind it we won't like. As for me, I wouldn't offer them peace if they held a knife at my throat, and now—when we really hold a knife to theirs, if they only knew it—" She gave an angry shrug and did not finish.

"Do you feel there's any hope of their accepting the emperor's terms?"

Juille scowled. "It depends on how intelligent they are. I'd have called them utter savages, unable to see beyond the next battle, if they hadn't planned this invasion of the inner systems so well. And just now, of course, they do have the upper hand. They took us by surprise. But we're finding our balance and beginning to strike back. They may realize they've struck a little too soon. Maybe they can see ahead to the time when we'll reach that deadlock—and then the new weapon may very well turn the balance to our side." She shook her head fretfully, so that the windows gleamed in reflection upon her shining helmet. "I don't know. It worries me that they came at all. Since they did, it's just possible they might agree to a treaty. Yes, I might almost say I think there's some danger of their agreeing to peace."

"You consider it a danger, highness?"

"The greatest the empire has to face. I say crush them utterly, whatever it costs us. I'd rather inherit a bankrupt empire, when my turn comes, then live on side by side with those murderous savages, giving them our arts and sciences, letting them think themselves our equals. No. No, I feel so strongly about this that I've had to discard a luxury no empire can afford to keep when it threatens the common good." Juille glanced around the room, gathering the eyes of her staff. She nodded.

"We've all agreed to this," she went on. "We make no secret of it. I'm so afraid of even the remote chance of peace at this stage, that I've given orders to prevent it." She paused a moment. "I've given orders that the H'vani ambassadors be assassinated before they reach the conference table."

There was silence for a moment. The Dunnarian regarded Juille with expressionless eyes. "They're under truce," he said at last, matter-of-factly. Juille's lips thinned.

"I know. But I intend to be merciless in victory, and I may as well start now. In this case I believe that the end more than justifies any means necessary to achieve it."

"You feel there is that much danger that the H'vani will agree to peace at this stage, when they're winning on all fronts?"

"Why else would they consent to come?" Juille shrugged. "I don't mean to waste any more thought on the matter. If they don't agree now, my father will offer it again and again, to prevent a long war. Sooner or later, as we gain more of the balance of power, they'll accept if they have the chance. If we kill their envoys under a flag of truce now—well, there'll be no more conferences."

The Dunnarian nodded quietly. "A very interesting decision, highness. I assure you I wouldn't interfere even if"—he glanced up at the clock—"even if you'd given me time to."

Juille followed his gaze. "Ah," she said. "You're right—they should be landing. Helia, get us the scene."

Helia, moving with the forthright clumping tread of an old soldier, crossed to the screen where an animated map of an embattled world was tracing the course of insurrection. As she passed the Dunnarian the *llar* on her shoulder gave itself a last preening stroke, gathered its sleek limbs and leaped without a

jar onto the envoy's shoulder. He put up a hand to stroke it, and the little creature bent its head to the caress, rolling up its great round eyes with solemn pleasure.

Juille stared. "I've never"—she stammered with surprise—"never in my life . . . why, he'll hardly let me touch him! I'll swear I haven't stroked him like that twice in my life. And he never even saw you before!"

The envoy's delicate, lean features creased in the first smile she had seen upon them. "I feel the honor keenly," he said to the *llar*. It butted its round forehead against his palm like a cat.

A blast of music from the screen interrupted them. Swimming into focus as Helia turned the controls, the scene of the H'vani envoy's landing sharpened into colorful view. Juille curled her lip at it.

"All that ceremony," she murmured, "when we ought to be cutting their throats! Well, they'll soon see what the empire really thinks of them. My men ought to show up very soon now."

She took off her helmet and leaned forward to watch, chin on fist, her dark-gold braids catching the red reflections of banners from the screen and shining as if in firelight. The braids were pinned like a coronet across her head to cushion the heavy helmet which she held now upon her knee. In its surface the red reflections moved too, blurrily, as if —in obvious simile—she cradled the momentous event in her very lap.

The H'vani newcomers were small, brightly clothed figures moving in a press of soldiers. Because the emperor had insisted that their representatives be the highest officials of the enemy race —its hereditary leader and its commander in chief—there had been tremendous haggling over the terms of safe conduct. In the end, they had been assigned a camp outside the city, near enough the boundaries of the Ancients' forbidden territory to remind them of the fate their ships had suffered. And now in the midst of a bodyguard of imperial soldiers they rode toward the city on horseback, amid much flurry of trumpets and streaming of red imperial banners.

Juille was not much interested in the dignitaries as individuals. Her eyes were sweeping the crowd in quick, impatient glances, picturing the flash of her assassins' guns. And the same thought, the same picture, was in every mind in the room with her. No one moved, waiting for that instant. If the power of thought had tangibility, their common concentration of purpose should have been enough in itself to strike the H'vani down.

With intolerable slowness, on the backs of tall, mincing horses, the procession drew near the city. It was a long, colorful ride. The people of Ericon, at the heart of the Galaxy's culture, paradoxically ride horseback when they travel. Except for the straight, paved roads which link city to city, there is little power-driven traffic, and that chiefly the transportation of supplies. Radio-television is so superlatively developed that almost no occasion ever arises for travel upon Ericon itself. Sightseeing is not encouraged upon the sacred control planet, and so much of its surface is forbidden by the Ancients for their own mysterious ends, and by the emperor for his imperial prerogatives, that as a rule only legitimate business traffic, with its prescribed roadways, moves upon the face of Ericon.

As a result, horseback riding is highly fashionable, pleasant enough and sufficiently picturesque to satisfy those of that world who go abroad for amusement. Actually, the terrene of other planets is much more familiar, and more easily reached, because of these restrictions, than the surface of Ericon itself.

The party had been riding a long time, and the tension in the room where the watchers sat was growing unbearable, when a nagging familiarity about one of the mounted figures she watched struggled up past the level of awareness into

Juille's conscious mind.

"Focus it down, Helia," she said sharply. "I want to see those men."

The picture swooped dizzily as the vision seemed to hover downward above the slowly moving procession. Then the two H'vani were large upon the screen in bright, three-dimensional life, the rustle of their cloaks audible in the room, the creak of harness, the clink of fire sword against belt.

Juille struggled against a moment of sheer suffocation. She was horrified to feel a tide of prickling warmth sweep up within her, clear to the roots of the dark-gold braids. Too many emotions were striving for dominance in her mind—the effect made her reel. For she knew this blond and bearded young man with a harp slung across his shoulder, riding a tall horse toward the city. She knew him very well, indeed.

Then their meeting on Cyrille had been no accident. And—that half-forgotten grip upon her throat had been no caress. For a moment, her mind and her gaze turned inward, calling back the brief, puzzling idyl which the urgency of recent events had so nearly eclipsed even from memory now. It came back vividly enough, with that picture moving on the screen to remind her.

She sat quite still, sorting out the memories of those three careless, oddly disturbing days on Cyrille. Egide—that was his name, then, Egide the H'vani—must surely have come there because of certain knowledge of her presence. And he must have come with a purpose that was not hard to guess. Especially not hard now, when she looked back to those few strange, tense interludes when she had been frightened without understanding why.

But he had never fulfilled his mission. He had come to kill her and he had let her live. She felt a sudden triumphant flush of vindication—she had guessed his weakness even before she knew his name. It was all there to see in that sensitive and sensuous mouth of his, and she had forestalled him through sheer instinct in the moment of his greatest resolution. A wave of scorn for him washed over her. A man like that was no fit leader for revolutionaries to follow. She had forestalled him in his most urgent duty—but how had she done it? Juille felt the deep blush returning, and bent her head futiley to hide it as her mind went back to that strange, frightening, delightful interlude upon the cloud.

Whatever her motive, she knew it had been herself, not he, who made that first inviting gesture. He had meant to kill her. Every calculating compliment he paid, every scene of elaborate romance he lead her through, had been meant only to lull her to unguarded ease. He must have had no other purpose. But she . . . she took it all at face value and had seemed in the end to beg for his kisses. The deepest depths of humiliation closed over her head as she sat there motionless, burning to the hairline with a red blush of rage.

When her swimming gaze focused again, she met Helia's warning eyes and fought for self-control. And because Helia had bred discipline into her from infancy, after a moment she gained it. But the turmoil of her thoughts went on. No wonder, she thought bitterly, he had agreed to this conference. He had every right to think that she knew him now—had recognized him in some portrait or news screen if she did not recognize him on Cyrille—and he must believe that she herself had insisted upon the meeting, that the terms of peace were hers. He might preen himself now with the thought that his armorous work upon Cyrille had borne fruit already in her betrayal of her own people into compromise with the enemy. She thought hotly that he would judge her by himself and think her as ready as he to toss principles away for the weakness of a personal desire. She had to fight down another surge of blinding humiliation that she had made herself vulnerable to the patronizing scorn of such a man as this. And for an instant

she hated, too, the amazonian upbringing that had left her unarmed against him.

Well, there was one good thing in the ugly situation. She would never have to face him again. Her assassins had delayed unpardonably already, but they surely would not delay much longer. He would die without seeing her, without knowing—without knowing she was not deceived! Still thinking the peace plans were hers, because of love for him! No, if he died now she thought she would die, too, of sheer anger and shame.

She sat forward in her chair, watching the two H'vani, reading insolent swagger into every motion they made. To her eyes they rode like conquerors already, coming to accept the peace they thought her ready to hand them on a platter. And she knew she must kill Egide herself or never know self-respect again.

They were at the city gates now. She watched feverishly, on a sword-edge of impatience for the assassins to fail after all. Trumpets echoed from the high white walls and the procession wound along broad streets toward the palace. Juille, waiting on tenterhooks for the flash of the gun that would rob her of her last hope for self-respect, began to realize as the procession moved on, that somehow her hope was to be granted. Somehow the assassins had failed. It was too late already for any efficient job of killing to be done, here in the crowded streets. She leaned to the screen, breathless, seeing nothing else.

She did not know that Helia was watching her anxiously, or that the Dunnarian's great luminous eyes dwelt upon her face with a fathomless sort of speculation.

She paused outside the arch of the conference hall, balancing the *llar* upon her shoulder, drawing a deep breath. Behind her Helia whispered, "All right, all right. Come along now," The familiar voice was marvelously bracing. Juille smiled a grim smile, tossed her cloak back over one shoulder and strode in under the archway, hearing the trumpets blare for her coming.

They rose from their chairs around the white table in the center of the room. She would not look at individual faces as she swung down the room with a clank of empty scabbards—externally she must keep the truce. She felt very sure of herself now. She held her bright-helmed head arrogantly, making the cloak ripple with every long stride, hearing her spurs jingle as she came. The trumpet notes shivered and echoed among the arches of the ceiling.

Above them rose the soaring transept of a vast hall. Its purple walls paled to violet and then to white as they rose toward an intricate interlacing of arches through whose translucent heights pale sunlight came pouring. It was a very old hall. The emperors of Ericon had reared it upon the ruins of the race they had displaced. And that race had built here upon the ruins of other emperors, ages before.

The present emperor stood white and tall at the head of the table. Juille bowed to him formally, but she flicked over and past the other two men a glance so icy that it barely acknowledged their presence.

In one glance, though, she saw all that she needed to see. It was Egide. The same handsome, rash, blue-eyed young face with the curly short beard, the curly hair. He had hung his harp over the chair arm where he sat, and Juille thought it the ultimate touch of decadent foppishness, incongruous in a barbarian prince. He wore today not an extravagantly designed cloak of blood or hair, but black velvet that looked spectacular against the silvery gleam of his mesh mail. There was a fire-sword scar half-healed across his cheek and temple, and he looked a little more tired and wary than the careless lover of Cyrille. But the blue eyes were as confident as ever on her face.

All this in one cold, flashing glance

that ignored him. She folded her fingers lovingly over a tiny palm gun hidden in her hand, its metal warm from that close hiding place. Her glance flicked over the other man and went on.

Big, bull-chested, with reddish hair and beard and eyes. Huge forearms crossed over his chest. A barbarian, typical of the savage H'vani. And yet so openly savage, with such a direct, fighting glare on his scarred face, that she felt a reluctant flash of kinship with him. Such a man, she thought, her own remote forefathers must have been who conquered the Galaxy by brute force and left it for her heritage. Beside him Egide looked the fop he was, and her father the senile idealist.

She nodded distantly as the emperor introduced the two. Egide, hereditary leader of the H'vani. Jair, his commander in chief. Her only thought was a murderous one. "If I can kill them both, what a blow to the H'vani! And what fools they were to come!"

Her father was speaking. She scarcely listened to the sonorous voice whose echoes went whispering among the arches in confused murmurs high overhead.

"We sit today," the old man declared, "over the graves of a score of races who made the same mistake we are on the verge of making here, and who died because they did."

She could feel Egide's blue stare upon her face. It was intolerable. All the ages of imperial pride rose behind her, the pride of a hundred generations that had commanded the stars in their courses. This one bearded barbarian sitting here staring at her unashamedly, as if he were her equal, as if he thought she, too, must be remembering a fantastic night-time ride upon a cloud, under stars like burning roses in constellations without a name.

She turned full upon him one bright, furious glare that flashed like a violet fire sword beneath the helmet brim. "You ought to be dead," the burning glance implied. "When I find who

failed me, and why they failed, they'll be dead, too. You're living on borrowed time. You ought to be dead and you will be soon—you will be soon!" She made a chant of it in her throat, letting her eyes half-close to slits of bright fire-blade violet.

The emperor talked on. "We are too evenly matched. Neither can win without such destruction as will cast the whole Galaxy back a thousand years. On all the worlds of that Galaxy—many new worlds that have not yet known war—our forces stand poised in armed, precarious truce, watching what happens here today. If we join in battle—"

Juille made an impatient gesture and recrossed her legs. The little palm gun was warm in her hand. She wished passionately that the platitudes were over. And then a treacherous spasm of pity went over her as she listened to the deep old voice roll on. He had been a great warrior once, her father. This meant so much to him, and it was so hopelessly futile— But there was no room for pity in the new Galaxy of today. Her lips thinned as she fondled the trigger of her gun. Soon, now.

"The H'vani are a young race," the old man went on. "A crude race, unlettered in any science but warfare. Let us give you the incalculable wealth we have to spare, that you could never take by force. We can teach you all our science has learned in the rich millenniums of our history. In one stride you can advance a thousand years.

"If you refuse—there is no hope for you. At the very best, we can and will destroy you, if only after such struggles as will cost us all we have. At worst—well, other races have met in deadly conflict on Ericon. Where are they now?" He pointed toward the marble floor. "Down there, in the dark. Under the foundations of this hall lie the building stones of all who fought here before us. Have you ever been down there in the catacombs, any of you? Do you know the old kings who once ruled Ericon? Does anyone alive? And will anyone remember us, if we fail to learn by their example?"

Juille's hand came down roughly on the sleek-furred little animal that had slid down upon her knee, and then all her scornful inattention vanished as the small body twisted snakelike under her hand. She snatched it back with lightning quickness, just in time to avoid the slash of her pet's teeth. It stared up at her, nervously poised, clutching her knee with flexible fingery pads, a look of completely spurious benignity and wisdom in its round eyes even now.

A new voice, so deeply resonant that the air shuddered in response to it, was saying powerfully, "When peace terms are proposed, it'll be the H'vani who dictate them!"

Juille looked up sharply. The emperor had paused. He stood beside her now with his head sunk a little, watching the two envoys from under his bristling brows. She felt a fresh spasm of pity. But the new voice was making strong echoes rumble among the arches of the ceiling, and she knew it was time to pay attention.

Jair was on his feet, his great fists planted like mallets upon the table edge. "We'll talk peace with the Lyonese," he boomed triumphantly, "but we'll talk it from the throne. Time enough for—"

Juille shoved back her chair with a sudden furious motion and leaped to her feet, her eyes blazing across the table. The *llar* had sprung sidewise and caught the emperor's arm, where it hung staring over its shoulder at her with enormous benignant eyes.

But before she could speak, Egide's chair scraped leisurely across the floor, the harp strings ringing faintly with the motion. He stood up almost lazily, but his words preceded hers.

"We ask the emperor's pardon," he said in a calm voice. "Jair, let me talk."

Jair gave him a strangely blank look and sat down. Egide went on:

"What my general means to say is that peace terms must come from us if

they're to come at all. What the emperor says is true and we realize it, but we believe it to be only part of the truth. A divided victory isn't enough for the H'vani, no matter how many secrets you offer as a bribe. My people are not to be bought with promises for the future." He smiled whitely in the impeccable flaxen curls of his beard. "My people, I am afraid, are a very literal race. Not too ready to trust an enemy's promises. Now if you had some specific benefit to offer us here and now—something that might reassure the H'vani about your sincerity"—he glanced from Juille to the emperor and went on with an impulsive persuasion in his voice that Juille remembered well—"I think we might have a better chance of convincing my people that you mean what you say."

Juille met his guileless blue gaze with a steely look. She knew quite well what he was hinting. So that was why they'd come, was it? To wheedle the Dunnarian weapon out of the emperor's senile, peace-bemused hands, and taking full advantage of their supposed immunity because of what had happened upon Cyrille, because they must think that she herself was equally bemused at the memory of it. Obvious strategy, and yet— Juille glanced at her father. No expression showed upon his thoughtful face, but she felt a sudden cold uncertainty about what he might decide to do. Surely he could not believe that the H'vani meant what they said. Surely he must see that once they had a share in the new and subtle weapon from Dunnar there'd be no stopping them this side of the imperial throne. No, he was certainly not yet mad.

But this was only the beginning. Talk would go on and on, endless circlings around the proposal Egide had just voiced. Endless counterproposals from the emperor. Days and days of it, while Egide still went on believing that she was the reason why he had been invited here, still exchanged with her these sudden blue glances that recalled their days upon Cyrille—the crystal platform drifting through flowery branches and the green evening light of spring. The starry lake beneath their feet as they danced, and the long smooth rhythms when they moved together to enchanting music. The landscapes unreeling beneath their couch of cloud, the great stars blazing overhead.

No, she would not endure it. She would end it here and now.

"Egide—" she said in a clear, high voice.

He turned to her with a quick eagerness she had not seen before. This was the first word she had addressed to him upon Ericon, the first time she had ever spoken his name. He was searching her face with a look of eagerness she did not understand. She didn't want to.

She walked slowly around the table toward him. They were all on their feet now, looking at her in surprise. All speech had ceased and the hall was very still. The emperor said, "Juille?" in a voice not yet very much alarmed, but she did not glance at him. She rounded the end of the table and saw Egide push his chair out of the way with a careless thrust that knocked the harp from its back. In the silence, the jarred strings wailed a thin, shrill, plaintive discord through the hall, and Egide caught the falling instrument and smiled uneasily at her.

She came toward him without a flicker of returning smile. "Egide—" she said again. She was quite near him now. Near enough to see the crinkling edges of the scar that furrowed his cheek, the separate curling hairs of his shining beard, his thick golden lashes. Behind him she was aware that Jair had drawn an uneasy step or two nearer. She was looking straight into Egide's blue eyes, large and unfathomable at this nearness. She came forward one last step, bringing her gun hand up.

"I want you to know," she said distinctly, "that I had no part in asking you here. I hate your race and all it stands for. I mean to do everything I can to prevent any truce between us. Every-

thing. Do you understand me?"

The emperor did. He knew his child. He took one long stride toward her around the table, crying, "Juille, Juille! Remember the truce—"

But he was too far away. Juille fixed Egide's fascinated stare with a hot, exultant stare of her own, and her lips drew back in a tight grin over her teeth. With her face very near his, and her gaze plumbing his gaze, she smiled and pulled the trigger.

Then time stopped. A dozen things happening at once, jumbled themselves together bewilderingly, prefaced and veiled by a great fan of violet heat that sprang up terribly between her face and Egide's. Juille heard Jair's roar and her father's cry, and the crash of overturning chairs. But her brain was numbed by the shock of that violet heat where there should have been no heat—only a thin needle beam of force boring through Egide's corselet.

She and Egide reeled apart with singed lashes and cheeks burning from that sudden glare as the instantaneous fan of light died away. Her dazzled eyes saw dimly that he was gasping like a man who had taken a sudden sharp blow in the stomach, but he was not dead. He should be dead, and he only stood there gasping at her, blinking singed golden lashes.

For a split second her mind could not grasp it. She saw the silver mail burned away across his chest where that fierce needle beam should have bored through flesh and bone. She saw beneath it not charred white skin and spurting blood, but a smooth shining surface which the beam had not even blackened. Everything was ringed with rainbows, and when she closed her smarting eyes she saw the outline of burned mail and gleaming surface beneath in reversed colors bright against the darkness of her lids.

Then time caught up with her. Things began to happen again with furious speed. The explanation flashed into her mind as she saw Egide reaching for her. He wore some sort of protection even under his mail, then—some substance that deflected the needle beam into a blast of thin, scorching heat diffused into harmlessness. And she had an instant of foolish and incongruous rage that he had come thus protected, doubting the validity of their truce.

Then Egide's arm slammed her hard against the unyielding surface of whatever armor he wore beneath his mail. She felt a small, reluctant admiration of the strength in that arm—an unexpected strength, remembered from Cyrille—and of his almost instantaneous action even when she knew he must be sick and breathless from a severe blow in the pit of the stomach. The gun's beam would have bruised him heavily even through the armor, before its force fanned out into sheer heat.

It all happened too quickly to rationalize. She did not even have time to wonder why he seized her, or why Jair, bellowing with a sound of exultation, was dragging them both across the floor toward the far wall. She had a confused glimpse of her father's bewildered and outraged face. She saw the guards leaning out of their hidden stations in the wall across from her, guns leveled. But she knew she herself was a shield for the two H'vani, though what they planned, she could not even guess.

Other guards were tumbling from their posts, running toward them across the hall. Juille suddenly began to fight hard against the restraining clasp that held her. She bruised her fists upon the armor beneath Egide's mail. Jair roared inexplicably:

"Open up! You hear me? Open!"

Egide crushed her ribs painfully against his corselet and swung her feet off the ground. For a dizzy instant the violet walls and the sunlit white arches of the ceiling spun in reverse around her. She was hanging head-down over Egide's shoulder, seething with intolerable rage at this first rough handling she had ever known in her life. But she was

bewildered, too, and off-balance and incredulous that such things could happen. She was briefly aware of cries from the hall, her father's voice shouting commands, the guards yelling. And then came sudden darkness and a smooth, swishing noise that cut off all sounds behind them.

The dark smelled of dust and age-old decay. Juille's mind told her what her reason refused to accept—that somehow, incredibly, these barbarians had come forearmed with knowledge about some panel in the walls of the imperial council hall which a hundred generations of ruling emperors had never guessed.

She was still upside down over Egide's shoulder, acutely uncomfortable, her cheek pressed against something cold and hard, her eyes stinging from the heat of her own gun. Voices whispered around them. Someone said, "Hurry!" and there was the muffled sound of feet through dust that rose in stifling clouds. And then a long, sliding crash that filled the darkness deafeningly and made the eardrums ache from its sudden pressure in this confined space. Someone said after a stunned moment, "There, that does it." Someone else—Jair?—said, "How?" and the first voice, familiar but unplaceable:

"When they break through the wall, they'll find this rock-fall, and a false tunnel that leads outside the city walls. They'll think you went that way. We laid a trail of footprints through it yesterday. Safe now."

But who . . . who was it?

"Put me down!" Juille demanded in a fierce, muffled voice. That someone whose tones sounded very familiar indeed, said:

"Better not yet. Come along. Can you manage her?"

And the nightmare went on. Someone ahead carried a light that cast great wavering shadows along the rough walls. Juille was joggling up and down across Egide's shoulder through the musty dark, sick with fury and outrage and bewilderment. Her eyes streamed with involuntary tears as an aftermath of that heat flash; her burning cheek was pressed hard against the corner of something cold and unyielding—Egide's harp?—and the dust rose chokingly all around.

After smothered ages, the familiar voice said: "You can put her down now."

There came one last upheaval and Juille was on her feet again, automatically smoothing down her tunic, glaring through the dimness in a speechless seizure of rage. She saw Egide looking down at her with expressionless eyes, saw Jair's savage face dark in the torchlight, his eyes gleaming. Between them she saw the familiar, comforting, tough-featured face of Helia.

For an instant her relief was greater than she would have thought possible. All her life that face had meant comfort, protection, gruff encouragement against disappointment. In the midst of this bewilderment and indignity, the one familiar sight made everything all right again. Even in the face of reason—

Egide still held her arms. Now—

"Turn her around," Helia told him, in the familiar voice, with the familiar homely gesture of command Juille had known all her life, from nursery days. She found herself spun around, her arms held behind her, while Helia reached under the mail tunic and took away the little dagger that no one else knew about, the dagger that Helia herself had taught Juille to hide there and use unexpectedly as a last resort.

Juille closed her eyes.

"The others will be waiting," Helia's capable voice remarked calmly. "First, though—highness, I had better tie your hands."

Juille wondered madly whether that violet flash of heat had really killed her. Perhaps it had only stunned her—that must be it—and all this was an irrational dream.

Helia's familiar hands that had bathed her from babyhood, dressed her hurts,

taught her sword play and target practice—were binding her wrists behind her now with sure, gentle swiftness. The well-known voice said as the binding went on:

"You must understand, highness, before you meet the rest. I don't want you to face them without understanding." She drew the soft cords tighter. "I am an Andarean, highness. Your race conquered ours a hundred generations ago. But we never forget. Here under the city, in the catacombs that were once our own imperial halls, we've met to pass along from father to son the tradition of our heritage. We've planned all these centuries for a day like this. There." She gave the cords a final pat. "Now, keep your head up and don't let them see it if you're confused. Wait a minute." She came around in front of Juille, clucked disapprovingly, and took out a handkerchief to wipe the dust from Juille's hot face where the tears had streaked it. Then she straightened the helmet that had fallen by its chin strap over one ear.

"Keep your head up," she said again. "Remember what I've taught you. We may have to kill you later, my dear—but while you live, you're still my girl and I want to be proud of you. Now—march!"

And so, bewildered to the point of madness, still choked by the dust in her nostrils, her eyes burning and her hands tied behind her, but with her head up because Helia, insanely, wanted to be proud of her, Juille let herself be marched forward, up shallow steps and into a big low cavern lighted by square windows through which light streamed from some outside source.

There were people here, sitting along the walls on benches. Not many. Juille knew some of the faces—servants and small courtiers about the palace. A few of them held responsible positions with the defense forces.

From among them a man stepped forward. Juille did not know him, except that his features were Andarean. He wore a purple tunic and cloak, and he bowed to the two H'vani.

"We are making history here," he said in a soft, low-pitched voice. "This is the turning point in the war for Galactic domination. We of Andarea welcome you and the future you will control."

Jair drew a deep breath and started to say something. Juille was aware that Egide's elbow jammed into his ribs. Egide, still breathing a little unevenly from the gun bolt in the stomach, spoke instead in his most courtly voice:

"We H'vani will owe you a great deal. You've managed things perfectly so far. But we haven't much time now. The weapons—"

The Andarean's long eyes slid around to Juille. It was at once a query and a murderous suggestion, without words. Juille felt a sudden shudder of goose flesh. New experiences had crowded one another in these last few minutes until she was dizzy with trying to adjust to them—she had never been manhandled before, she had never before been treated like an object instead of a person, and she hotly resented the fact that Egide had not directly addressed a word to her since the moment in the hall when she had tried to kill him.

Behind her dimly she saw Helia step forward to lay a hand on Egide's arm. Suddenly she knew how Egide had learned of her presence on Cyrille—perhaps, too, why her assassins had failed to reach the H'vani during their ride into the city. But when Egide spoke his voice was firm, as if he had not needed prompting.

"Juille is our hostage," he told the Andarean. "There, I think, we've improved on your plan. If anything goes wrong, we still have something to bargain with."

The Andarean nodded dubiously, his narrow, impassive eyes lingering on her face as if in reluctance. "Perhaps. Well, we'd better get started. We—"

"Wait." Egide glanced around the

cavern, dim in the light that so oddly came through from outside. "Are these all of you?"

"Almost all." The Andarean said it carelessly. "Our numbers have dwindled very much in the last few generations."

Juille narrowed her eyes at him. That was a lie. The Andareans were few, but certainly not this few. Grateful for some problem she could take a real hold upon, she cast her mind back searchingly over the past history of this race, making a mental note to have the heads off certain of her espionage officials if she ever got out of this alive.

Long ago the earlier emperors had kept close spies upon their overthrown predecessors, but the watch had relaxed as generations passed and the Andarean numbers grew less. They were too few, really, to matter except in some such accident as this, when chance assembled just the right factors to make their treachery dangerous.

So the two H'vani had come—why? Exactly why? Groping back among the tangled skeins of plot and counterplot Juille lost her grip again upon clear thinking. They were here because they thought in her weakness she had asked them to talk peace terms—because they hoped to trick possession of the Dunnarian weapon out of the Lyonese hands—because of some treacherous promises from these skulkers in the underground. And those skulkers themselves were lying out of the depths of further schemes of their own.

She got a cold sort of comfort out of that. If the H'vani had deceived her and her father, they in turn were being deceived. For there were far more Andareans upon Ericon than she saw here. Their leader would not have lied just now if he were not playing some desperate game with his new allies.

Weapons. Egide had asked about weapons. Were the Andareans offering him some new offensive measure to use against the Lyonese? And why? The Andareans were a subtle race; surely they had cherished the memories of their great lost heritage too long, if Helia told the truth, to give up their future to H'vani rule, supposing the H'vani won. And surely they were too wise in the ways of deceit to trust H'vani promises even should they win.

Juille gave up the problem as Helia took her arm again and drew her after the others. They were moving out of the low cavern with its strange outside lighting. Helia padded along softly at Juille's side, her eyes downcast. Juille looked at her in the dim light, finding no words with which to reproach her. She was still too stunned by this sudden failure of the solidest assurance in her life to look at it with any rational clarity.

Nor was Helia a woman to offer apologies.

"Look around you," she said brusquely as they filed out of the cavern. "You may never see a sight like this again."

The cavern, seen from outside in clearer light, was obviously the collapsed remnants of a much higher room. What might once have been a hallway ran around it outside, the walls patterned with luminous blocks that shed a glow which must be three thousand years old.

The walls showed scars of age-old battle. Juille's first imperial ancestors might very well have commanded the guns that made them. For this uppermost level of the tunnels which lay beneath the city must once have comprised the lower stories of the palace the Andareans had built in the days of their glory.

The ruins had been leveled off and sealed when the modern palace was built. Everyone knew of the honeycombing layers which went down and down in unknown depths of level under level. Some of them had been explored, cursorily. But they were much too unsafe for any systematic examination, and far too deep to be cleared out or filled up to give the city a firm foundation.

The confusion of interlacing passages,

level blending with level, was so complex that explorers had been known to vanish here and never reappear. And immemorial traps, laid down millenniums ago by retreating defenders in forgotten wars, sometimes caught the innocent blundering along dusty tunnels. Walls and floors collapsed from time to time under the weight of exploring footsteps. No, it was not a safe place for the casual adventurer to visit.

But perhaps in each dynasty the survivors of the defeated race had lurked here in the cellars of their lost and ruined city, remembering their heritage and plotting to regain it. Perhaps—Juille thought of it grimly—her own people one day might creep in darkness through the shattered remnants of her purple plastic halls and jeweled arches, buried beneath the mounting stories of a new city, whispering the traditions of the Lyonese and plotting the downfall of triumphant H'vani. And perhaps they, too, might explore downward, as the Andareans had obviously done, searching the dangerous lower levels for some weapon to turn against the victors.

From the murmurs that drifted back to her along the tunnels she knew that something valuable lay hidden here, unless the Andareans were lying again. It was hard to believe that any such weapon actually existed, unknown after so many generations of curious explorers. And yet the Andareans sounded very sure. Egide and Jair would certainly not have risked their necks on such a mission unless the promise had been soundly based on evidence.

Indeed, it seemed incredible that these two foremost leaders of the revolt would have dared to endanger their lives and their whole campaign on such a gamble as this, had they not been very sure of escape.

Someone ahead was carrying a radiant globe of translucent plastic on the end of a tall handle. She could see Egide's confident yellow head haloed with light from it, and Jair's great bulk outlined against the glow. The light sliding along the walls showed scenes of forgotten Andarean legends, winged animals and eagle-headed men in low relief upon which dust had gathered like drifts of snow. They passed windows of colored glass that no longer opened upon anything but darkness. They passed rooms which the soft light briefly revealed in amorphous detail under mounds of smothering dust.

And once they came out on a balcony over a scene that took Juillet's breath away. The vast hall below them was built on a sale so tremendous that it seemed incredible that human minds had conceived it. Its vast oval was proportioned so perfectly that only the giddy depths below them made the room seem as large as it was. A muted blue radiance lighted it from incredible heights of windows lifting columns of blue unbroken glass from floor to ceiling, all around the walls.

Helia said with a sort of gruff pride, "This was one of our temples once, highness. No one's ever built such a temple since. See that glass? The secret of it's lost now. The light's in the glass itself, not from outside." She was silent for a moment, looking down. Then she said in a softer voice, "Andarea was a great nation, highness. You feel the same about yours. Remember what you said today, about breaking the truce? The end justifies any means you have to take. I think so, too."

It was as near as she could come to apology or explanation. And Juille, after a moment of blinking dismay at this application of her own theories turned against her, was conscious of sudden respect for this inflexible woman at her side. Here was the true amazon, she thought, more ruthless than any man in the naked simplicity of her cast-off femininity. This was the one quality Juille could respect above all others. She glanced ahead at Egide's broad back, despising him for the lack of it. Unswerving faithfulness to a principle, whatever that principle might be.

Juille wondered what Egide was thinking, how he interpreted to himself her attempt at murder. Well, if she had failed it was not for weakness like his. And there might come another chance. Her mind had begun to awaken again after the stunning shocks of the past half hour. Already she was making plans. Helia she thought she understood. Helia would protect her while she could. She would see to her comfort and save her face whenever possible, but when the time came, Helia might kill her with a steady hand. And Juille would have scorned her if the hand shook.

They went down a sweep of tremendous stairs and filed, a pigmy row, across the floor of that vast hall under the shining blue columns of the windows. And from there they went down sharply, and down again.

There was tension in the air of these lower levels. Once an Andarean went ahead to a curtain of spider webs that veiled the passage and lifted it aside on the point of a staff, with exaggerated care, while the party passed beneath. And once they balanced carefully in single file along a bridge of planks laid upon perfectly solid flooring.

They had come so far now, by such devious ways, that she had no idea where she was, or at what level. She was sure the H'vani were equally at a loss. And it occurred to her briefly that they were at the mercy of their guides now—that the Andareans could come very close to putting an end to the Galaxy-wide warfare here and now in the dusty dark. For robbed of their leaders, the armies would certainly falter. But Juille felt quite sure that whatever the Andareans wanted, it was not peace.

They had, perhaps, taken steps even surer than her own to make certain that the emperor's peace conference came to nothing. The H'vani, primed with promises of mysterious weapons, would be in no mood to make a truce with any idea of keeping it.

She demanded suddenly of Helia, still walking at her elbow in the old accustomed place, "Why haven't the Andareans used these weapons themselves?" And she saw Egide's broad back tense a little, the harp slung across his shoulder—where she had hung ignobly a little while before—shifting place at the motion of muscles beneath. She knew that he must have been wondering the same thing. And she knew he was listening.

"As we told the H'vani," Helia said, "we aren't a nation of fighters any more, highness. And there are too few of us. We couldn't risk losing the weapons in any tentative uprising."

So they'd told the H'vani that already, had they? And it hadn't satisfied Egide any more than it did herself. Helia was a magnificent fighter. She had taught Juille all she knew. A determined, secret band of men and women armed with an unexpected weapon could have seized key positions on planets enough to swing the balance of power to themselves if they chose, and if they were gifted with the subtle minds the Andareans had already shown themselves to possess. Juille would not have hesitated, in such a case. And she didn't think Helia would either, if there were no alternative.

Obviously, there was an alternative. They were using the H'vani against the imperial forces—why?

Suddenly, Juille saw the answer. It was the simplest strategy in the world, and the safest. You could risk an uprising, your own neck and ultimate failure by acting yourself, or you could pit the two forces of greatest power against one another, preventing any truce between them by devious methods, arming one against the other to maintain a perfect balance—until they had wiped each other out. When both sides had struggled to exhaustion, why then let the Andareans step in and take over the control they had been prepared to take for so many centuries. It was so easy.

TO BE CONCLUDED.

The Mutant's Brother

by Fritz Leiber, Jr.

Science hasn't worked on supermen—but with men, environment can make a lot of difference even between a pair of twins. If one were "brought up wrong"—the error might be costly.

Illustrated by Kramer

The cabin of the Steelton airjet was like a long satiny box, hurled miraculously through the night. Inside it, the thunder of the jets was muted to a soothing rumble. Passengers dozed in the soft gloom, or chatted together in low, desultory voices.

There was comfort in the cabin, and the warmth of human security.

But Greer Canarvon turned away from his fellow passengers and peered out at the wild rack of wind-torn clouds, silvered by a demon moon. Like shadowy monsters they loomed and writhed, now bending close around the airjet, now opening their ranks so that he caught moonlit glimpses of the ragged Dakota Bad Lands.

Out there, he knew, lay his real kinship—with all that is alien and terrible and lonely. With the wild forces of darkness and the unknown. With all that is abnormal and inhuman, though it wear the mask of humanity.

Hunger to be with one of his own kind—a hunger which had never been satisfied—rose to a new pitch of poignancy. He fumbled in his pocket for the radiogram, which already looked creased and old, although it had popped out of the radioprinter only yesterday.

CONSOL SKYGRAMS
EXPRESS BEAM No. 3A-3077-B89
9/17/1973

GREER CARNARVON
209 BUNA TERRACE
COMPTON, OHIO

DEAR BROTHER,
IT IS TIME WE GOT IN CONTACT. IF YOU ARE WHAT I THINK YOU ARE, YOU WILL KNOW WE HAVE MUCH TO TALK ABOUT THAT ONLY YOU AND I CAN UNDERSTAND. THE ADDRESS IS 1532 DAMON PLACE, STEELTON. IF YOU COME, HURRY. JOHN HALLIDANE.

Greer's heart pounded—that heart whose beating always brought a momentary frown of perplexity to doctor's faces as they listened to it through their

stethoscopes. He felt for a cigarette, but the package was empty. He glanced at his conventional radioactive-driven wrist watch. Half an hour yet to Steelton. An hour perhaps before he got to Damon Place.

His only brother. His twin brother. And, if orphanage records of their striking similarity could be trusted, his identical twin. The only person in the whole world whose chromosomes and genes could carry the pattern of that frightening mutation.

For it must be a mutation. It was unthinkable that his parents could have possessed his powers and still lived such cramped and mediocre lives as the brief records showed. Almost equally unthinkable that such characteristics could have lain dormant in the germ plasm for generations, submerged by dominant factors, to be brought to life by one chance mating.

"I'm coming home a day early to please the wife," one of the men in the seat ahead was explaining jocularly. "This Carstairs business has made her jumpy."

"A regular city-wide scare," agreed his airjet acquaintance. "Glad to be back with the family myself."

Home, thought Greer bitterly. The familiar, the cozy, the safe, the tried-and-true—all he was now cut off from. Should he lean forward and whisper confidentially, "Speaking of scares, gentlemen, I have certain knowledge that there is a monster on this airjet."

Though for that matter his own home life had been of the most pleasantly conventional sort. His foster parents were grand people—apparently he'd been luckier than John in that regard. During childhood and adolescence there had been only the most shadowy intimations of what would some day set him so utterly apart. Doctors had frowned at his heartbeat, had puzzled over something in his eyes and an odd tinge in the color of his skin. They had caught fleeting, almost intangible impressions of *otherness*. But being practical physicians, they had assured themselves that his health was sound, and had gone no further. Or perhaps something—some kind of intuition that shields men from contact with the unnatural—had made them sheer off.

At times he had wondered, with a touch of fear, if there weren't something different about him. But all children do that.

Otherwise, he had grown up as a healthy, normal child in a favorable environment. His ideals and aims and standards of behavior had been those of the children around him—a little better, perhaps, for his foster father was a very upright man.

And all the while that thing—that power—had been silently breeding in his flesh.

The cabin lurched gently, and the rumble of the jets went a tone deeper, as if some vast organ in space were sounding the opening notes of an awesome prelude. The silvery-smoky cloud monsters swooped close.

Awareness of his power had come with the suddenness of a thunderclap. Afterward he remembered the splitting headaches he'd had for weeks, and realized that something might have been growing in his brain. Some new organ for which his skull hardly provided space.

Not all characteristics of an individual, whether normal or mutant, need be present at birth. Some, like sexuality, mature late. His power was like that.

He stared at the ragged cloud monsters. They seemed for a moment to be reeling in a wild dance, perhaps in invocation of the spirit of the grotesque and barren landscape the airjet was traversing. A terror of the abnormality lurking in the cosmos possessed him. Evolution was such a coldly and frighteningly inhuman process. Mutation worked by chance. It had no pattern or plan. Usually it only botched the normal organism. Sometimes, though rarely, it brought a slight improvement.

But it could, conceivably, give rise to—anything.

He realized he was trembling slightly. His face was a tight mask. He automatically fingered for a cigarette, then remembered that the package was empty and crumpled it. He was frightened of his own power, terrified. It was such a darkly inhuman thing, like a survival from myth or primitive sorcery. That was one of the reasons he had not been able to tell anyone about it. It had such immense potentialities. It made a man a king—much more than a king. It clamored to be used. It tempted him, and he wondered if he would be strong enough to resist temptation.

He must talk to someone about it! In less than an hour, he would be with his brother. It would be easier then. Together they could work out some course of action. If only they could have gone together sooner!

Greer had not always known that he had a brother. When his foster parents took him from the orphanage, his twin had already been adopted by the Hallidanes. Later on his foster parents had tried to bring the two boys together, for a visit at least, but the Hallidanes had rebuffed this friendly suggestion.

There were things which his foster parents had not told him about the Hallidanes—unpleasant things, which he had not only discovered through his recent inquiries at the orphanage. How the Hallidanes had been accused of neglect and cruelty with regard to their adopted son, but had successfully fought a legal action. How—final action of what must have been a sordid domestic tragedy—the father had murdered the mother and then killed himself.

That had happened a little less than a year ago. Thereafter the orphanage had lost track of John Hallidane.

For a brief moment the soft lights of the cabin winked out. Chilly moonlight, flooding through a gap in the turbulent clouds, transformed his fellow passengers into a company of ghosts, bound on some ominous mission.

Since Greer had first learned that he had a twin, he had indulged in endless speculations about him. He imagined

his twin doing the same things, thinking the same thoughts. Realization that he was a mutant had changed those speculations into a frantic desire for contact. During the past months he had made every conceivable attempt to pick up his brother's trail. All had failed. In the end it was his brother who had gotten in touch with him.

Evidently John Hallidane had been kept completely ignorant of the fact that he had a twin, and had only discovered it by chance. Perhaps he had recently recontacted the orphanage.

Again Greer scanned the terse radiogram. He could read something like his own anxiety between the guarded lines. The same hunger for a kindred being. The same fear of being found out by strangers. "If you are what I think you are—"

Anticipation made Greer's mind almost painfully alive. Speculations about his brother and his brother's life flashed through it more quickly than he could grasp them. There were a thousand things he wanted to know.

"Well, we should be there in a couple of minutes," observed one of the men on the seat ahead, reaching for his hat. "Then we'll be able to get the real dope on this Carstairs business," he added.

"No doubt of that," his companion replied with a faint, nervous chuckle. "Everybody in Steelton must be talking about it."

Only half an hour now—maybe less! As Greer folded the radiogram, he realized that his hands were shaking. His body throbbed—a suffocating feeling.

The muffled thunder of the jets changed to a different key. He pressed his face against the cold transparency of the window. The airjet was slanting down toward a hole in the thinning clouds. Through it, as through a vast reducing glass, he could glimpse the streets and towers of Steelton. A general glow, and the absence of bright points of glaring light, made it seem like a spectral city.

For a moment the emotion he felt was not so much eagerness as fear.

"Package of Camdens," Greer told the girl at the tobacco counter, a tiny bower of garish plastics in the vaulted immensity of the Steelton Terminals.

"Self-lighters?"

He shook his head. While she was getting them, he jerkily tried to analyze what it was that struck him as so peculiar in the behavior of the people around him. There was something set about their expressions, something tense about their movements. They were a little like the robot mannequins parading shimmering garments in the display front opposite. The hum of conversation wasn't as loud as it should be. The amplified voice of the newscaster rang out too clearly. From the moment he'd landed, the atmosphere of apprehension had been as palpable as fog. Steelton was like a city awaiting attack.

Probably just a reflection of his own nervousness.

Impatiently he turned back toward the counter and caught the girl staring at him fixedly. He took the package from her hand. She smiled, nervously this time. As she was getting his change, she still watched him guardedly.

He lit a cigarette. He heard the newscaster say: "Tonight Police Director Marly assured a committee of Steelton citizens that it will only be a matter of time before Robert Carstairs is apprehended. Every police officer is on the alert, said Marly. We have sworn in two hundred deputies. Our nets are closing in. Robert Carstairs' hours of liberty are numbered."

Suddenly Greer realized that the hum of conversation and the echoing tramp of footsteps had ceased almost altogether. The girl at the counter turned away to look at the huge telescreen. That was what the rest of them were doing.

"We take this opportunity to repeat a previous statement of Police Director Marly," continued the newscaster. "It

is the duty of every citizen to aid in ridding Steelton of this menace. Robert Carstairs is dangerous. As the terrible tragedy at the Carstairs residence proved only too well, he displays a fiendish talent for ingratiating himself with his victims and subjecting them to his will power. If you see this man, instantly inform the police."

Then Greer saw flashed on the telescreen what was, in every detail and particular, a gigantic picture of himself.

What happened next seemed to Greer to happen slow-motion. The girl turned around. Her mouth sucked in air for a scream.

But the scream never came. He exerted his power. He did not see her thoughts—he seldom could see thoughts. He merely exerted his power. She stood there, staring woodenly.

Ducking his head so that half his face was masked by hat brim, he walked away rapidly. He could hold her for perhaps a hundred feet. By that time—

A big man carrying a black suitcase looked at him sharply, then looked again. He dropped the suitcase. He turned on Greer, his hands coming up to grab.

But they never grabbed. Under Greer's control, he picked up the suitcase and walked on.

Several people noticed the incident. They peered at Greer curiously. First two of them, then three, he had to bring under his control, as he saw that they recognized him as the man they had seen on the telescreen. He didn't know how many he could dominate, because he had never tried. Not more than four or five, he had the feeling.

From behind came a piercing scream, as the girl at the tobacco counter escaped from his influence.

The way everyone jumped at that scream gave him an idea. Distraction. There was a young man approaching in a gray coat and hat not unlike his own. Just as the number of people who recognized him was getting beyond his control, he caused the young man to break into a run, and sent three people after him yelling, "There he goes! There he goes!" Then he continued toward the exit.

He felt a profound thrill of satisfaction. It was good to have to use his power without having time to be afraid of it, to think, to weigh the consequences. He walked purposefully, eyes searching the crowd ahead for the telltale signs of recognization, exerting control when he saw them.

Here and there behind him men and women awoke with a jerk—to fear and to the disquieting realization that four or five seconds had vanished unaccountably. They had seen the archcriminal Robert Carstairs. They had been about to do something. Then he had suddenly vanished—as if life were a film and the film had jumped a couple of feet ahead. Had it been an hallucination? Or—what sort of being was this Robert Carstairs. There were stories—stories which the newscasters played down. Around their hearts twined the tendrils of an icy terror.

A surging agitation followed Greer through the crowd, like a wave that lapped at his heels but never quite caught up. He was constantly shifting control from one group of persons to another.

The young man in the gray coat and hat came to himself and began to make profuse, bewildered apologies to an elderly woman he had careened into. His pursuers stopped and stared around, as baffled as he. Individual communicators clicked an alert to the police and detectives stationed in the terminals, as an observer in the gallery sought to fathom the nature of the commotion.

Greer was nearing the exit. But the agitation was increasing, and more and more it was centering around him, closing in. Too many people were staring at him. The situation was getting beyond his control. If he had to hold off a dozen at once, he was done for. Five or six was the limit.

He changed his tactics—caused four men to form a cordon around him, shielding him from view. He had them walk briskly and assume important, official-looking expressions, so that people got out of their way.

There were two policemen at the exit, trim in blue and silver, suspicious-eyed. But as they came within range of Greer's power, their expressions became first blank, then different. They opened the doors for him. He slipped away from his cordon. He kept control of the policemen, causing them to stand at the exit and block off any possible pursuit.

There was a sleek black monocab cruising past the Terminals. He summoned it to the curb. It gave to his weight as he sprang aboard. The gyro brought it smoothly back to even keel as it lunged ahead.

Under his control, the driver turned several corners at random, then headed for the rendezvous at Damon Place.

Since Steelton was a young metropolis, indirect street lighting was the rule. The result was ghostly, unreal—a shadowless city half materialized from the night. It seemed to Greer that there were unusually few people abroad. None of them loitered. Their taut apprehensiveness was more marked even than that of the crowd at the Terminals.

The monocab purred like a satiny cat. Greer felt himself slipping into a mood of black reaction. There was something fundamentally loathsome about using people like puppets. You didn't know where to stop.

Was that what had happened to his twin? Had he yielded to the temptation to use his mutant power to his own aggrandizement, make people his pawns?

Greer's mind veered away from the possibility. Much more likely, he told himself, that his twin had gotten into trouble by unwisely revealing his power. That was enough to make people hate you, fear you, fabricate hysterical accusations, lay all manner of crimes at your door. How else could you expect people to behave toward a mutant with the power of direct hypnotic control?

Yet why the change of name from Hallidane to Carstairs? Why— He fought the ugly suspicions that crowded up into his mind. Partly from unreasoning loyalty. Partly because he so ached for contact with his own kind, that he could not bear to think of anything standing between them. His brother's attitudes *must* be like his own!

A police monocar droned past. Greer ducked his head, acutely aware that, whatever predicament his brother was in, he was in it, too. For the present, there were two Robert Carstairs in Steelton.

Of course, if he had to, he could prove his identity. Or could he? Steelton's panic was of the hysterical, shoot-on-sight sort. And suppose he did prove that he was Robert Carstairs' identical twin. Wouldn't that only mean two monsters to be exterminated instead of one?

His brother must stand in desperate need of help. Now he could understand the last line of the radiogram. "If you come, hurry."

The monocab swung into a wealthy residential district. The houses drew back, screened themselves with trees. The diminished street lighting was a ghostly counterpart to the cold beams of the high-riding moon. At reduced speed the motor was almost silent. From somewhere far off Greer heard the wail of a siren mount and die away. The face of the driver was placid but very pale. Greer shuddered, although it was his own power which controlled the man. It was too much like traveling under the guidance of the undead.

Quietly, almost furtively, because the driver responded to Greer's present mood, the monocab drew up in front of a yawning archway on which appeared, in glowing metal, the numerals "1532."

Greer stepped out, looking around puzzledly. Something seemed definitely out of key. This was not the sort of neighborhood in which he had expected to meet his brother.

In response to his unspoken question, the driver turned. Moonlight blanched the last color from his features. He enunciated tonelessly, "Yes, I know this place. It is the Carstairs residence."

At that instant Greer's mind darkened with the cloudy telepathic warning that there were minds inimical to himself within his range of control.

From the archway, and from a similar archway across the street, narrow beams of white light struck him like dazzling spears. That such beams traced the course along which police bullets would follow, Greer knew. But the telepathic warning had given him the split second he needed. Before fingers could press triggers, the minds which the fingers obeyed were under his control.

Yet something whipped past his ear with a faint, high-pitched squeal. A gout of momentary incandescence blossomed from the pavement beyond him as an explosive bullet struck. From a roof perhaps a hundred yards away a lone searchbeam was seeking him out, inexorably determining the path of a second shot.

Once again, as at the station, it seemed to Greer that everything was going slow-motion except his thoughts. His mind reached out to overpower that of the police gunman. But, as he feared, the distance was too great. The lone seachbeam seemed to crawl as it swung in on him. Yet its crawl was airjet speed compared to anything he could get out of his muscles. The gunman would get at least two more shots before he could reach cover. Perhaps three. There was only one thing to do.

Almost before he realized it, the searchbeams of the police under his control swung away from him, scattered, reconverged on a high, tiny figure silhouetted against the massed black tubing of a sun-heater. As one, their guns spoke. The lone searchbeam careened wildly. There was a nerve-racking pause. Then the sickening hollow smack of a body hitting pavement.

A spasm of revulsion went through

Greer. It was murder he had commanded. The man on the roof hadn't had a chance.

Yet even as he fought that reaction of self-loathing, even as he strained to maintain control of the police, he realized that it was not alone the impulse of self-preservation which had motivated him.

There was a job to be done, a job that only he could do. There was a monster at large in Steelton, and Steelton must be ridded of that monster.

"Not only Steelton. The whole world.

In one dizzy instant, his fears and suspicions crystallized. Only loyalty to his unknown brother, and an aching desire for the companionship of his own kind, could have blinded him to the obvious truth.

Why had his brother summoned him to Steelton, *without even warning him of the deadly danger to which he would be exposed?* For one reason, and one alone—so that Greer Canarvon would be killed. So that Steelton would think that Robert Carstairs had been killed. So that his twin would be free to exploit his power without suspicion—with more caution and sublety, no doubt, but with infinitely greater danger to mankind.

It was not so much hate that filled Greer, as a cold and unswerving determination. Already he had made his plan. The police under his control were escorting him to their monocar.

His thoughts were coming with a machinelike rapidity. All Steelton was engaged in a man hunt. If his brother's mind worked like his own, there was one very obvious place for his brother to be.

And if he were at that place, Greer knew a very simple way of getting at him.

Once again tattered clouds marched across the moon. Through lonely streets the monocar raced toward its destination, the siren wailing a challenge, like some night-thing. Greer sat between two policemen, and there were two more on the seat ahead. To all intents, he was their prisoner.

One of them was reciting a brief history of the Carstairs case. Only a certain lack of color in his voice indicated that he was under direct hypnotic control—unconscious, yet as obedient to Greer's wordless commands as the man at the monocar controls.

"At first we only thought that an unusually clever pickpocket must be at work. Even at that time there had been a crop of odd suicides, but we didn't connect them up until later. Some of the people who were robbed claimed that their minds had gone blank, usually while strolling down a busy street. They had come to themselves perhaps a half a block later and found their valuables missing. We supposed they'd daydreamed and that the pickpocket had taken advantage of their abstraction. Later we had to change that opinion, for in two cases witnesses reported having seen the victim hand over his pocketbook to a young man, apparently of his own free will.

"About the same time, there had began an inexplicable series of burglaries. Householders would go to answer the door chimes, their minds would blank out, later they would recover consciousness and discover that their homes had been ransacked. A newscaster got hold of that and started a wild story about a criminal who used a mysterious gas to render his victim helpless. The police doctors found no support for any such view."

The monocab banked sharply around a corner. But the voice went on without a break, calmly.

"At first we thought the robberies and the other cases were fakes, done to collect insurance or perpetrate similar frauds. But there were too many of them, and the faking wasn't good enough.

"Then a woman came to us with a

story that the Carstairs girl had blurted out to her. The Carstairs are about the richest people in town. The Carstairs girl claimed that they were being victimized by a young man who had installed himself in their home and was passing himself off to visitors as a distant relative. He could control their minds, she said, cause them to lose consciousness and make them do anything he wanted them to. He had made very explicit threats as to what he would do if any one of them squealed to an outsider while not under his influence. They were all terrified of him. The Carstairs girl herself was pitiably frightened, but she just had to talk.

"At any rate, that was the story the woman told us. It was pretty wild, like a lot of groundless accusations we'd been getting. But we went to the Carstairs home to investigate, taking the woman along.

"The Carstairs girl denied the whole story. Said the woman had invented it. Yes, their cousin Robert was visiting with them, but he was a completely respectable young man. The accusations were absurd. And so on. We didn't know at the time that Robert Carstairs must have been in the next room.

"She talked in a very calm and reasonable way—there wasn't the slightest indication that she was hiding any fear. That was what was so convincing about it. It was *our* woman who got hysterical.

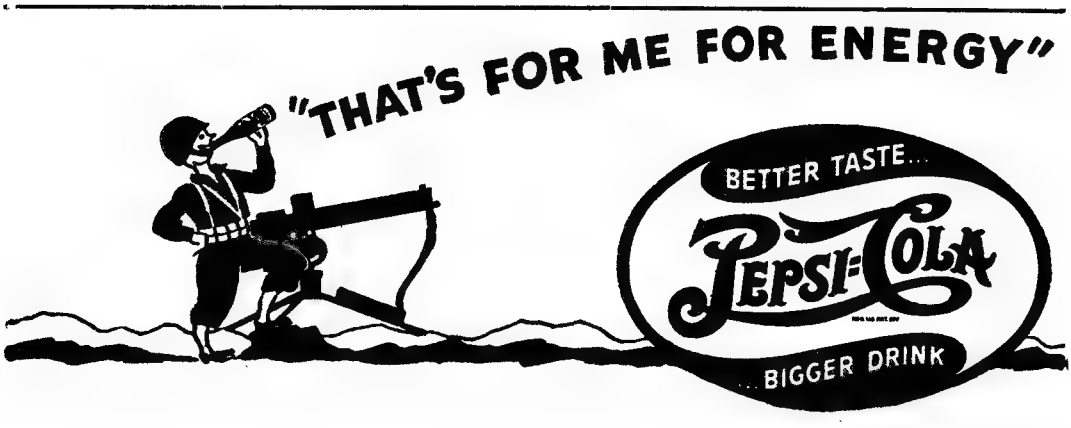
"But because we were at our wits' end and not passing up anything, a detective was assigned to shadow Robert Carstairs.

"Two days later that detective carefully locked himself in a room and committed suicide.

"A real locked-room suicide, with a note in his own handwriting and everything else. No chance of a fake. Still—the coincidence. Police Director Marly started some general inquiries about Robert Carstairs. Very quietly, of course, for the Carstairs had enough influence to stop an inquiry if they got wind of it—and if they *were* under his power that was presumably what they'd do.

"Gradually, adding one bit of information to another, we got at the truth. Friends of the Cartstairs complained that the whole family was becoming moody. On some occasions, usually when Robert was present, they would be very pleasant—though there was something unfamiliar about their manner. At other times they would appear very miserable, as if haunted by some secret which they dared not divulge. Some of those same friends mentioned feeling acutely uncomfortable in Robert Carstairs' presence. For some reason they could not define, they were afraid of him. One or two of them spoke of experiencing unaccountable mental lapses in the Carstairs home.

"A discharged servant told an ugly story which indicated that Robert Car-



stairs' word was law in the household.

"We tried to find out his background, where he came from. We were up against a brick wall.

"Businessmen talked of how old Carstairs was changing the financial policies of his firm. Some of them thought that Robert Carstairs was somehow responsible for this.

"Meanwhile, the crime wave continued. More and more of the crimes seemed to be of a purely wanton sort, done to satisfy a whim or to display power, rather than for the sake of gain. You got the feeling that the criminal was amusing himself with his victims.

"Then a picture of the Carstairs attending a social function went out on the telecasts. One of the witnesses of an early pickpocket episode came to headquarters and identified Robert Carstairs as the young man to whom he had seen the victim hand over his valuables.

"That was all we'd been waiting for.

"Maybe Marly had a hunch about what might happen, for he sent half a dozen men to make the arrest.

"Well—he didn't send enough. Inside the Carstairs home, something happened to their minds. They became insane—homocidally. Up to now, this has been kept out of the newscasts. They killed each other. At least, they were found dead by their own weapons.

"It was the same thing with the Carstairs family, only there the indications pointed at suicide."

Siren moaning a warning, the monocar swung into a brighter thoroughfare, but it brought to Greer no feeling of escape from darkness. His mind was tight and cold. He was remembering how his brother's foster parents, the Hallidanes, had died—a sordid domestic tragedy—the father had murdered the mother and then killed himself.

Suicide—a kind of signature his brother scribbled on his crimes.

Greer understood, almost too well. He knew the temptation to use people, then to go a little further, then a little further still. If he had been brought up in his brother's environment—

His brother had raised a whole city against himself before he realized that there were limits on even a power like his. He could doubtless escape from Steelton, but there would always be that criminal record behind him. How much simpler if a Robert Carstairs died.

As if in agreement with that thought, Greer nodded grimly to himself. The story he had drawn from the unconscious detective had confirmed his own notion about his brother's behavior patterns. When his brother sought power, he had taken control of the wealthiest family in Steelton and had hung on until the last possible moment. Now that his brother was the object of a city-wide man hunt—

The deskman at Steelton Police Headquarters looked up at the newcomers. He saw the prisoner being brought in. His eyes went wide and stayed that way.

"Yes, we got Carstairs," one of the detectives told him. "We're taking him in to Marly."

And they walked up the corridor, two of them on either side of the prisoner, two with their guns in his back.

The deskman stared after them. He'd never really believed that they would get Carstairs. You couldn't—not if you know what the police did.

And they were being so casual about it!

A little later he remembered he hadn't flashed Marly to let him know they were coming.

Greer felt the tautness growing, in muscle and mind. He sought to dispel it, to empty his mind of thought, to maintain only sub-conscious-level control of the four men around him. He must avoid giving any sort of warning.

The corridor turned. He caused the four men to walk ahead of him. They quickened their pace in response to the feeling of urgency that surged through him.

Just a little farther now, Greer told himself, just a little farther—and then, in the mental dark, he sensed a glowing brightness, like a living light. It seemed to beat against his mind in ever-strengthening waves. It called to his mind to leap toward it and mingle with it. He strove to resist that call, to take no notice of it.

Ahead of him, the four men were filing through a door. On it he read "Director of Police." Beyond it he saw a gleaming metallic table and a ruddy-faced, gray-haired man, with two policemen in uniform seated beside him.

But behind them was another person. As if in a subtly distorting mirror, Greer looked at himself.

He had guessed right. His brother had done the crazily logical thing that Greer had expected.

Tonight there was a city-wide manhunt for his brother—and his brother was directing it.

And now, face to face with his brother, mind to mind, he was overwhelmed by the thought of what they might have meant to each other under different circumstances, and he hesitated too long in giving the order that he knew must be given.

Before the men under his control could raise their guns, they were cut down by a deafening burst of fire from Police Director Marly and the two officers with him. Human flesh exploded nauseously.

Then, for a third time that night, time seemed to crawl. Greer had flung himself to one side. Out of range—but only for a moment. His turn, he knew, was next. He sought to take control of Marly and the other two. He might as well have tried to control statues. They were his brother's puppets—not his.

He heard the rattling echoes of the gunfire die along the corridor. He saw a ribbon of smoke curl from the doorway. Seconds seemed like minutes.

He could see his brother's purposes so clearly now, read them direct from his mind. Control of the world. And it would be such an easy thing—just a matter of getting to the men who controlled it, or who were in a position to control it, and then controlling them.

And he could have prevented it, if only—

If only—

He struck suddenly at his brother's mind, to control it!

For an instant he thought he had succeeded. Then for an instant he thought he had failed. Mental brightness surging at mental brightness, seeking to extinguish. He felt a paralysis grip his muscles, a darkness closing down on his mind. By a supreme effort, he fought it off.

But deadlock was all he had wanted.

In Marly's room, guns thundered.

Greer did not need to look. He felt his brother's mind die.

In resisting Greer's mental assault, his brother had been compelled to free his puppets.

Dully, Greer wondered if he ought to die, too. He, too, was a dangerous monster. Tonight he had killed a harmless man and been the cause of death for four others.

And he had destroyed the only one of his kind in the wide world, the only one with whom he could speak from mind to mind and be answered. Darkness now. Mental darkness unending.

From Marly's room came a muffled exclamation of crazy amazement. Greer Canarvon realized that if he wished to escape, he must act quickly.

He turned to meet his lonely destiny.

THE END.

The End of the Rocket Society

by Willy Ley

The inside history of the most active rocket society in the world told by the vice president—an item of real interest to science-fiction. Ley shows why no further rocket society work is practical.

I now know what I always felt inclined to suspect: namely, that the authors of mystery stories are not fully satisfied with the mere tracing of clues for crimes which they themselves thought up in the first place. I always believed that they would also be interested in real mysteries of one sort or another. Now I know they are. Anthony Boucher proved it to me, all unwittingly, of course.

A few weeks ago he wrote me a letter, asking whether the German Rocket Society found its end when Hitler came to power and, if so, how. Or whether the Nazis "co-ordinated" that society and with what results. It seems that what he probably thought of as "The Mystery of the Vanishing Rocket Society" had prompted him to look up the available literature and that he failed to find a satisfactory answer. This failure does not surprise me at all, the accounts that can be found in print are rather garbled—as are most of the accounts of the experimental work done by that society—and have never told the whole story in detail.

Now Boucher is urging me to do so, and John Campbell agreed to furnish the type and the space for this purpose. So here's the story—but there is no other way of telling it than to begin at the beginning.

The German Rocket Society was founded in Breslau, Germany, in June 1927. The place was the back room of a small tavern and there were only a few people present, engineers, high-school teachers and such. I believe that according to German law the minimum number of people who can legally found a society is seven; if that number was exceeded in that session it was exceeded only by one or two. Only one man in the whole assembly was known by name to the public: Max Valier who was the author of a well-selling volume on astronomy, written for the public. He also was the author of a thin book on space travel, entitled *"Der Vorstoss in den Weltenraum"*—the title can be translated only approximately as "Attacking Interplanetary Space"—which was a more or less popular edition of

another book by Professor Hermann Oberth.* Oberth's book, incidentally, was not a heavy volume either, comprising only about eighty printed pages, but sixty of them consisting solely of mathematical derivations.

One of those present at that meeting, a man by the name of Johannes Winkler, agreed to accept the presidency of that society and promised to publish a small monthly magazine devoted to the same problem as the society itself and slated to act as a mouthpiece for the society. This monthly magazine, entitled *Die Rakete—The Rocket*—actually was published immediately afterward and appeared regularly until December 1929.

The official name of the society was not the equivalent of the term German Rocket Society—that term was made up later on for the purpose of facilitating foreign correspondence, especially with English-speaking countries. The official name was *Verein für Raumschiffahrt*—Society for Space Travel—and Winkler undertook the task of registering it with the Court of Breslau. This was essential for business purposes; only a society registered with a court of law could act in a legal sense, that fact was indicated by adding the letters e.V. to the name of a society. It means *eingetragener Verein*, or "registered society" and the meaning of the e.V. is the same as that of Inc. in this country.

When Winkler appeared in court he was told that there was an objection, the word *Raumschiffahrt*—space travel—was no defined in any dictionary, therefore the public would be unable to judge the purpose of the society, therefore et cetera, et cetera. But the court finally relented, new inventions did bring new words with them which would need time to get into encyclopedias and dictionaries, it was only requested that the document of incorporation itself had to define the name.

That done, Winkler had only one worry left and that was what he was to do with his society after it had finally been incorporated. He and Valier agreed that their first task was to assemble all the names of people known to a—more or less numerous—interested public as space travel enthusiasts. Thus Valier wrote me a letter asking me to join, Winkler wrote to Professor Oberth and to many others. And they all joined.

The idea of space travel had found a legal and so-to-speak official platform from which to speak. Everything seemed and was fine, some two months after foundation the society had four hundred members. All this, of course, did not precisely spring out from thin air—the idea itself had a sizable history before the society was founded.

The idea had started much farther back, and it is purely a question of taste which date you like to accept. The first stories about flights to the Moon were written in classical times; they may be termed the germ of the idea. I personally do not accept them, though, because flight through the air and the crossing of interplanetary space were believed to be the same then. I would be more inclined to accept the *"Somnium,"* the posthumous opus of the great Johannes Kepler, as the germ of the idea. Kepler knew that the atmosphere has an upper limit and that there are many thousands of miles of empty space between our atmosphere and the Moon. But Kepler did not even attempt to describe a method which would make such a trip possible. Cyrano de Bergerac did describe several "methods," one of them a series of powerful sky rockets, but I take this to be accidental. You might name Sir Isaac Newton, who discovered the action-reaction law and is said to have stated that this law would permit movement in empty space—this statement cannot be found in his writings, however, it is only tradition—or you might name the Dutch-

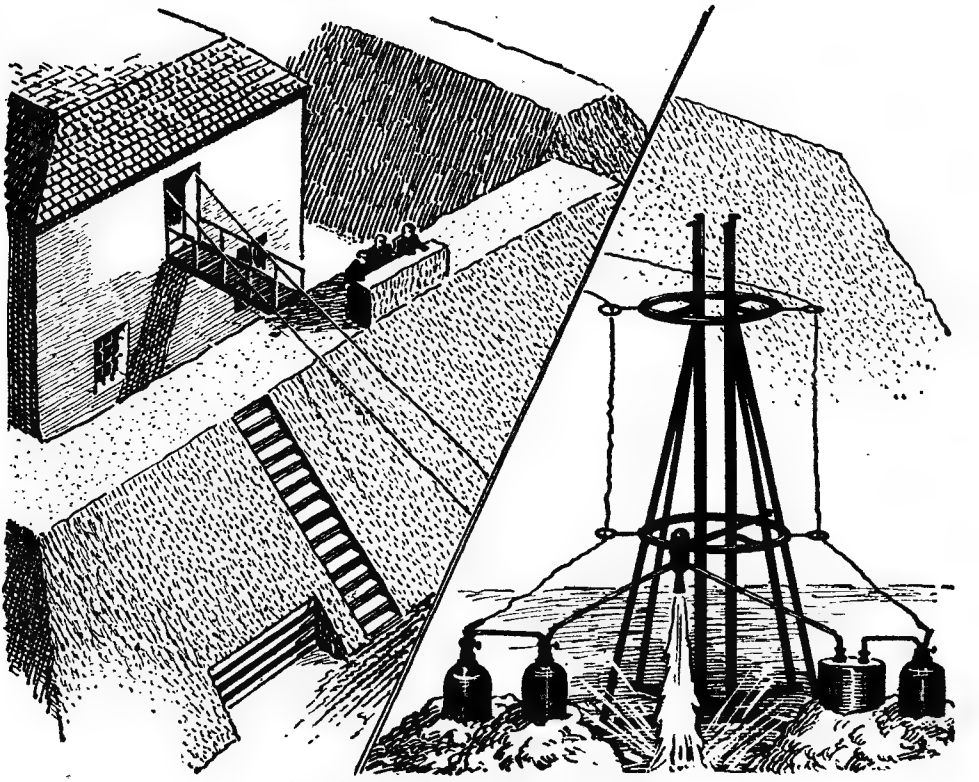
*Pronounced: *Obert*, with the accent on the first syllable.

man Jacob Willem s'Gravesande who in the second volume of his book *"Physica elementa mathematica"*—1721—described and pictured a model steam-reaction engine, mounted on a toy car. Or you may be in favor of the Englishman Percy Greg or the Frenchman Achille Eyraud; both wrote interplanetary novels in the '50s of the last century and both knew that space flight and flight was not the same. Percy Greg had his hero travel to Mars in a ship powered by *apergy*—reversed gravity—while Achille Eyraud had his hero travel to Venus in a vessel driven by a *moteur à réaction*. And I would consider naming Jules Verne as the father of space flight, even though since 1926 I am constantly troubled by the existence of his two novels and the constant question of whether it is "possible to build a gun large enough to shoot a rocket to the Moon." But, Jules Verne did think up a way of getting his men to the Moon and he deserves special praise for getting all his formula straight—with the aid of the Mathematical Institute of the French Astronomical Society. I would not name H. G. Wells because he imitated Jules Verne's method in one of the novels and "invented" the physically impossible "cavorite" for the other. But his German competitor of the same period, the professor of mathematics Kurd Lasswitz is a possibility. Lasswitz also used something like "cavorite," but did not get mixed up between acceleration and velocity, inertia and weight and developed a very thorough theory of accelerating and maneuvering in space by means of the reaction of specially designed guns.

But there can be little doubt that the idea was actually born during the last decade of the nineteenth century. On the 27th of May, 1891, the inventor Hermann Ganswindt delivered a lecture on airships in Berlin; forty years later he showed me newspaper reviews of his lecture and they stated that he had informed his audience that even the best airship or airplane—Ganswindt is one of the early, and unsuccessful, inventors of the helicopter—could not fly to another planet, but that that was not impossible either, if the reactions from successive explosions of say dynamite were utilized. And while Ganswindt lectured in Berlin, lectures interspersed with piano recitals of Chopin and Bach pieces—he was a self-taught pianist—a young schoolmaster in Kaluga in Russia attacked the same problem. Ganswindt attacked it with rhetorics, the schoolmaster Konstantin Edouardovitch Ziolkovsky attacked it with mathematics. He found that a reaction flight to the Moon was theoretically possible and he wrote a long paper, *"Rakyetta v kosmeetchesskoye prostranstvo"*—"Rocket into Cosmic Space"—which was published in 1903 in the Russian journal *Scientific Review*. It was discussed with heat and fervor, and then forgotten. Nobody outside of Russia ever read it; and—I am quoting from a letter Ziolkowsky wrote me many years later—"nobody inside of Russia remembered it for long." This paper, as well as the bigger one of 1911—"Exploration of Interplanetary Space By Means of Reaction Vessels"—were reprinted at Kaluga in 1924 and 1926—but still nobody outside of Russia ever saw them. Ziolkovsky mailed me copies, I was one of three people in Germany, plus two libraries, who had them.

I think we should give the crown to Ziolkovsky.

In 1919 R. H. Goddard published his "A Method of Reaching Extreme Altitudes," the first of the modern books on rocket possibilities. But it remained unknown in Europe, Professor Oberth even did not hear about it until he had published his own work. That was in 1923, some eighty printed pages, as stated before, representing the thought of nine years. He told me himself that the publishing house, a large firm devoted exclusively to technical books,



The VfR rocket motor testing set-up.

would publish the work only if part of the expenses of printing were paid by the author. Oberth was not quite thirty years of age then, the book ate up all of his savings. But the first small edition was sold within a few weeks. One who bought it then was Max Valier and he decided that Oberth's ideas should be made known also to people who could not read the purely mathematical original work. Without knowing about the parallel, Valier wanted to rewrite Oberth in the same manner s'Gravesande had rewritten Newton. And he failed in precisely the same manner as s'Gravesande. The latter did not write popular simply because he wrote Latin and Valier did not write popular all the way through because he tried to drive home points by mathematical proof. When I read Valier's book I perceived immediately that it was not popular and sat down to simplify Valier's book in turn. Then I saw that he had not even interpreted Oberth correctly all the time—that way I wrote my first book which was published in 1926.

And for that reason I was invited to join the *Verein für Raumschiffahrt e.V.* a year later. At that time I was a young man just twenty years of age, busy with wresting a living from a kind of permanent economic depression and studying zoology, some paleontology and a little astronomy at night, the typical poor working student of that period. To tell the truth: the border lines of those sciences interested me more than the actual material. I found the history of zoology more fascinating than zoology itself, and all through the astronomical lectures I wondered about Svante Arrhenius' theory of living spores traveling through space. If one could only go to other planets and check on that theory. But propellers do not bite in a vacuum and gravityless

substances violated half a dozen well-established laws of physics.

Do you see how the books by Oberth and Valier fitted in? In the meantime the city architect of the city of Essen on the Ruhr, Dr. Walter Hohmann, had published another book on the same problem, also a purely mathematical treatise—so much so that the first edition of fifteen hundred copies was never completely sold—and also positive in its final answers. So I decided on a course of action for myself and safe for the final hoped-for results I was successful. My plan was about as follows: First, get all the people who had contributed ideas together and make them write a book in collaboration. A readable book which would convince a great number of people, not precisely the man in the street, maybe, but engineers, teachers, the higher-ups in the civil service, and so on. Then get the readers to join the now-incorporated society which I'm going to call *VfR* "hereinafter." Make them pay dues. And give the money to Oberth for experimental work.

Winkler of the VfR agreed with at least the latter half of my plan. The publisher of my small popular book, and Oberth, Dr. Hohmann, Max Valier and one Dr. Leo von Hoefft of Vienna, who had written a few articles in Austrian magazines, agreed with the first half of it and began to sit down and write. I planned to get Robert H. Goddard, too, as a contributor, but he did not answer. The book appeared in May 1928. I could do better now as an editor, but it was not bad. It even sold well in spite of the high price, the equivalent of five dollars. And the VfR got new members—I had meanwhile been made vice president and had joined with Winkler in the editorship of *The Rocket.*

But meanwhile a lot of other things had happened. Privy Councilor Lorenz of Danzig had attacked Oberth in a high-handed and vicious manner. He had proved elaborately that a rocket,

Fig. 1. The Oberth rocket, made for Dr. Oberth by UFA Films Inc., as part of the publicity campaign for the "Girl in the Moon" movie.

in order to attain escape velocity with present-day fuels would have to carry about twenty times its own weight in fuel. Ergo: impossible, the escape velocity of about eight miles per second could not be attained, unless atomic power were discovered first.

There was a big meeting of the German Aëronautical Society in Danzig soon after this attack had been launched. The meeting took place in May 1928—the first copies of the big co-operative book arrived while sessions were going on—and the program committee had felt obliged to let Lorenz speak

about his then current pet theory, that Oberth was wrong. But it had invited Oberth, too. Oberth answered with a very short lecture that had nothing to do with the criticism. Then he pointed out in three sentences that he had arrived at the same result as Lorenz, that Lorenz could have found that result in his, Oberth's, book if he had taken the trouble to read it about halfway through and that he, of course, could not help it if Professor Lorenz refused to believe that an aluminum container could be filled with twenty times its own weight in water. Starting on that day Lorenz restricted himself to his original themes where he was an authority.

After that meeting Oberth, Mrs. Oberth and I had dinner together, and so for every day left of his vacation. We parted as friends and Oberth went back to Mediash in Transylvania. He is a Transylvanian German by birth, always lived there and missed no opportunity to assert that a man can be happy only in a small town—accent on small —in Transylvania. Politically he was an Austrian subject at first, then was made a Rumanian by the peace treaty. Being an awful linguist the obligation to teach in Rumanian hit him as hard as, say, the sentence to live in a city of more than one hundred thousand inhabitants.

Meanwhile, as I said, a lot of things had happened.

Meanwhile Max Valier had somehow managed to interest the owner of a then large automobile factory, Fritz von Opel, who would not be flattered by anything as much as by hearing himself referred to as the German Henry Ford. I may add here that Henry Ford was then regarded in Germany as the most outstanding man in all history, as the Man of the Future, and it is no accident that the Master of Metropolis —in the Fritz Lang film "Metropolis" was made to look like Ford.

Fritz von Opel listened to Valier and saw an opportunity for purchasing unlimited publicity with what was for him small change. Valier and von Opel got together on the construction of rocket cars, using large powder rockets manufactured by Friedrich Wilhelm Sander who owned a pyrotechnic factory which made life-saving rockets and signal rockets for the German navy. The first rocket car ran on von Opel's racing track on March 12, 1928. The publicity was enormous and Oberth, Winkler, I and the whole VfR gnashed our collective teeth. For more than a year we had concentrated on explaining that our proposed space rockets had only the name and the principle in common with the traditional powder-fueled sky rockets, we had gone to extreme lengths to explain the numerous advanages of liquid-fuel rockets to anybody who would listen—and Valier went and made publicity for von Opel with commercial powder rockets!

I used the excuse that Valier, being busy with his rocket cars, had missed the last deadline for the book to let it appear without his contribution. He was all but expelled from the VfR, but the harm was done. Later he told me that von Opel had not even paid him well for his service and that he had to accept a car at full price as part of the payment —I do not know whether that is true, but I feel inclined to believe it.

The result was that there were three groups suddenly, one with ideas and scientific proof but without money, the VfR, and two with money who played with powder rockets. The two latter were von Opel who continued alone and with hired help after Valier had resigned in a huff and Valier who had found another industrial firm which also wanted some inexpensive rocket publicity.

Oberth was approached by numerous promoters, all asking just forty or fifty percent of the money they would get for him and all ready to promise impossible things to investors. Oberth fell for one of these schemes, he was not hit too

hard by the consequences, and then remained cautiously aloof.

Meanwhile, to round out the picture, the French pioneer aviator Robert Esnault-Pelterie had proved the possibility of space travel all over again during a meeting of the *Société Astronomique de France* and had published the lecture in book form.* He had also found a financier, a banker in Paris by the name of André Hirsch. Together they had inaugurated an annual Prize for Astronautics, promising to give five thousand francs for the work, theoretical or experimental, which would be judged best at the end of the year, "best" in the sense of constituting the biggest advance of the idea of space travel.

Meanwhile Professor Nikolai A. Rynin of Leningrad had started writing a nine-volume encyclopedia on rockets and space travel, a now exceedingly rare work. The first volume was published in the fall of 1928, the last in 1932.

Meanwhile Johannes Winkler had taken another job of which he told nothing at the time. He only stated that it was confidential and that it would be inopportune for him to continue as president of the VfR. The members should elect Professor Oberth who, after all, was the father of the idea. When the time came around the members did elect Oberth as president while I was re-elected as vice president. I did most of the work, consequently the headquarters of the society were transferred to Berlin—actually, not legally.

And meanwhile Fritz Lang had read those books on space travel. Fritz Lang had the unique distinction of having directed some six or seven movies at that time, each one of them a howling success. In the popular mind "the movies" and Fritz Lang were the same. Fritz Lang had just finished "Metropolis" then and was working on "The Spy"*—both written as novels by his wife, Thea von Harbou. He tossed the spaceship idea at her, Oberth's work and my book—the big one, entitled *"Die Möglichkeit der Weltraumfahrt,"* —"The Possibility of Interplanetary Travel"—and wanted another movie. Thea von Harbou obliged, the novel *"Frau im Mond"*—"The Girl in the Moon"—was written, Lang began to worry about the technical details of the film. It was released October 15, 1929, and ran in this country under the title "By Rocket to the Moon." It was the last big German silent, already fighting the then-incoming talkies.

Fritz Lang did not want to make scientific mistakes, he looked around for an advisor. Max Valier, who somehow had heard of it offered his services and was rejected. Finally Lang wired to Oberth in Mediash. Oberth arrived with an enormous cold and even before seeing Lang he asserted that he would not sacrifice scientific accuracy under any circumstances. He had to yield on a few points, of course. Dramatic suspense required that the pilot of the spaceship would have to go through an enormous struggle against acceleration to shut off the power when the spaceship had reached escape velocity. Actually that would be done by an electric contact, regardless of whether the pilot is conscious or not, no matter whether he is in a faint, drunk, dead or absent. The main point was that the actors had to walk around on the "moon" without spacesuits. That was necessary; it was still a silent movie and facial expressions had to be visible.

Oberth asserted that he would not yield even before seeing Lang, and even before he did see him—Lang will like this when he reads it now—I began to needle Oberth. "Professor, there are the movies, not just the movies even,

*_L'Exploration par fusées de las très haute atmosphère et la possibilité des voyages interplanétaires._ Published in 1928, revised and rewritten as _L'Astronautique_ in 1930.

*It amused me greatly last year to hear Robert Heinlein tell Fritz Lang about a silent German movie he had seen when a naval cadet, a movie which stuck in his memory ever since, a movie entitled "The Spy."

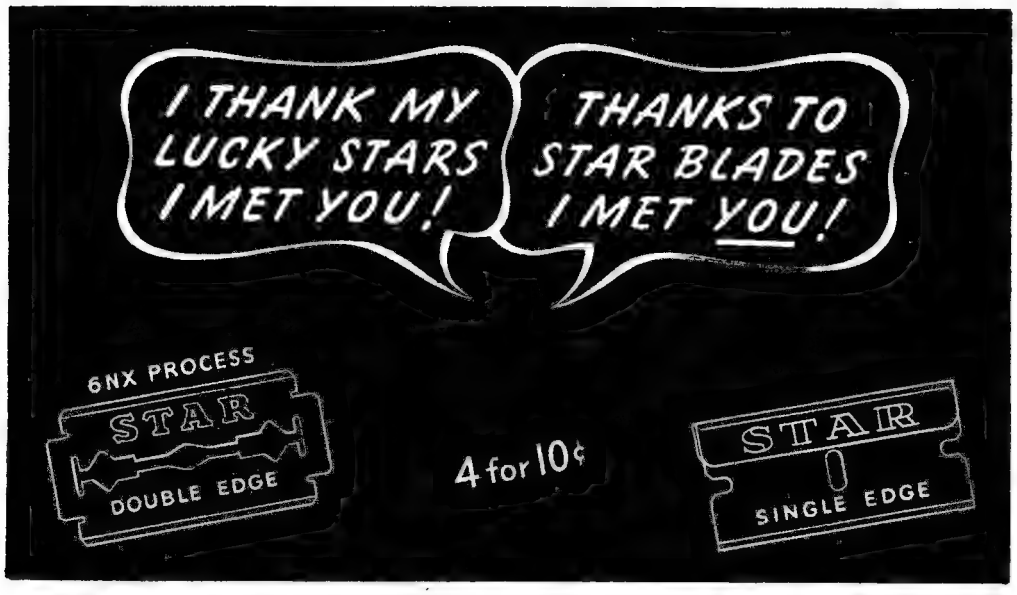
Lang himself. Money doesn't matter here, this is where you can get the cash to transform your formulas into reality."

It would have worked save for some minor factors. It is hard to say which one was most important, so I'll just enumerate them without trying to make their order a sequence of importance. One was the time factor. I did not know, and Oberth knew it even less, that most of the work on a movie is done when the actual filming begins. And Oberth had been called at about that time. That anything happened at all was due mainly to the fact that Lang had nursed similar thoughts and that he was willing to contribute out of his own pocket. He did, giving at least as much as the company. At about the time when the last scenes were filmed Oberth began to think about the experiments to be done. He had to hurry; the UFA Film, Inc., wanted free publicity for the movie for its money, a good-sized experimental rocket should be launched at the day of the *première*—some ten or twelve weeks hence.

That in itself was an impossibility, the "making of inventions in time for deadlines," as Oberth put it bitterly later on. The other impossibility was Herr Professor Hermann Oberth himself.

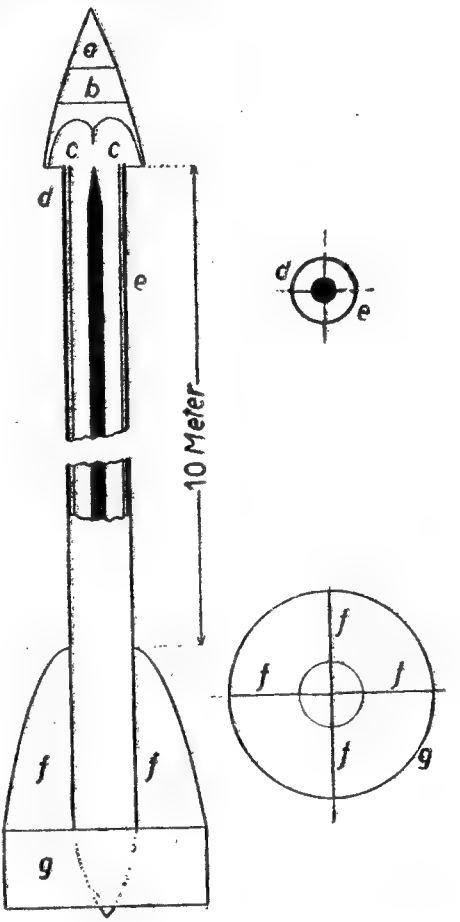
I find it difficult to describe the man simply because he *is* difficult to describe. First of all I must say that I still like him, in spite of everything, in spite even of the fact that he began to discover "Nordic superiority" in 1934. I don't take this any too seriously—it is just one more example of the amazing number of heterogenous elements in one man. As a thinker about rocket performance, rocket theory and the theory of space flight he was a very great man. I do not hesitate for one second to say that in that respect he is greater than K. E. Ziolkovsky, N. A. Rynin, Robert Esnault-Pelterie and R. H. Goddard all rolled into one and multiplied by five. This sharpness of mind in one single respect was the man—everything else about him was incidental and accidental—Mother Nature had to add some odds and ends to this to make him biologically complete, and she picked any odd piece that came handy.

I am not speaking about his physical appearance, he was a good-looking, very slender and somewhat lanky man with



very black hair and very dark eyes. I am referring to his mental make-up which was strange indeed. He was primarily a mathematician and physicist with some courses in astronomy thrown in. Primarily, I should have said, he was a mathematician. At the same time he dabbled in occultism; I have read a typescript of four hundred pages entitled "The Coming Seven Hundred Years," created by autohypnosis in front of a freshly fallen meteorite. The trance yielded an odd story of a man who became dictator of the earth—benevolent dictator—by inventing an absolutely irresistible weapon. That first dictator created unity of humanity by abolishing all churches, but not religion, and thereafter there was steady, rapid and peaceful progress. The trance also promised that Oberth would meet this man before he became The Dictator.

You may say that it does not matter how he amused himself in his spare time, but Oberth was deadly serious about his vision and was very angry that his publisher refused to publish that manuscript because it would reflect unfavorably on his other work.



As I stated before, Oberth was born in Transylvania, a German colony wedged in between Rumania and Hungary. Both his parents were Germans, German was the only language Oberth could speak fluently and he thought of himself as a German. But he disliked the Germans of the Reich, especially the Berliners who "had no soul and were German-speaking Americans, hunting money all the time," and he distrusted Germany, stating that it was potentially an aggressor nation. That did not prevent him from joining the *Nationalsozialistische Selbsthilfe*—National Socialist Self-defense—in 1934, one of the Nazi's fifth-column organizations in the Balkans—not realizing that that potential agressordom had then become actual and not realizing that the Transylvanian Germans were under—journalistic and legal—Rumanian fire just because they were Nazis. However, he refused to be anti-Semitic.

Politically a Rumanian he disliked the Rumanians, possibly with good reason, but was all in favor of Rumania, mainly because it was a small country. Besides he greatly admired King Carol and it is a matter of record that King Carol evinced very great interest in Oberth's work. As a matter of fact the king was almost ready to join the VfR, his hesitation was converted into a negative decision because Oberth advised against it—although he—Oberth—gave me all the facts that made him do that I still am not able to follow his strange logic in that case.

Thus Oberth, admirer of small towns and small countries, respected in his

small town and used to the company of small-town and country intellectuals, some of them semiretired scientists with good names, suddenly found himself in a city of four and one half million people who spoke a strange and to him ultrarapid dialect. He found himself on a movie lot, in the company of film stars and directors, big financiers, important and very worldly scientists and chairmen of huge foundations, beset by newspaper columnists with imposing names. And he found himself in charge of a hurry-up engineering job with no practical experience to fall back on. He probably needed most of his energy to show that he was not bewildered by all this.

And he could not understand people.

He wanted his bicycle to which he was used—and could not understand why one could not visit the director of a research foundation that way but was to use the subway or a taxi. He wanted to be friendly and tried to demonstrate his friendly feelings by taking a long, thin cigar from his vest pocket and a clasp knife, cutting the cigar in half and offering one half to the Herr Geheimrat. (I have seen it myself.) The conference then lasted ten minutes and an important opportunity was muffed for all time. And he grew very angry with me because I tried to correct him, to advise him what to do and what not to do.

So Oberth had to build a rocket in a hurry. He knew that he was no engineer and that he needed one. He could have asked any one of innumerable people he knew for an able assistant, he could have phoned one of the specialized employment agencies—but he put a classified ad into one or several newspapers. Several men responded, capable men, no doubt, and Oberth had to make a choice. There was one of the applicants whose appearance struck him like lightning. This was the man he had seen in that meteorite-inspired vision. He even bore that scar on his forehead, Oberth did not know that it was a result of reckless driving.

That individual was a small man with a hard face, a Hitler-voiced unemployed engineer, carefully dressed and with military posture. "Name is Rudolf Nebel, diploma-ed engineer, member of the oldest Bavarian student corps, World War combat pilot, with pilot's license and rank of lieutenant, with eleven enemy planes to my credit."

He was hired immediately.

I may add right here that Nebel told me himself later on that he had been graduated in a hurry during the war because he had volunteered for the air force and that after the war he had never worked as an engineer but as a kind of salesman for mechanical kitchen gadgets. Since jobs were almost impossible to find, all this was probably not his fault, but I often discovered later that I knew more about problems in his field than he did.

Oberth found himself another assistant whose name had come to his attention because it had been the by-line to a brilliant article in an aviation magazine. Via the editor of the magazine Oberth got hold of the writer, a Russian aviation student by the name of Alexander Borissovitch Shershevsky. Shershevsky had been sent to Germany to study gliders, but overstayed his *kommandirovka* and dared not go home again. But he was genuinely in favor of the Soviet government, not a "White Russian"—he was a refugee by accident.

Those three, the theorist who longed for the fresh mountain air of Mediash, the professed militarist Nebel and the Bolshevist Shershevsky worked together, or tried to. Shershevsky did not adore work overly much, Nebel was willing to work and waited for orders, and Oberth was not quite certain where he should start.

Oberth did not build a rocket to be used at a certain date—he researched.

Some opponents had said that liquid oxygen and a fuel, say gasoline, would never burn together but would always explode. Oberth made experiments to show that they would burn. He did prove his point and it has been proved five hundred times over again since. Unfortunately he did have an explosion during one of the first experiments; that explosion came close to ruining his eyesight in one eye and laid him up for several days. Oberth spent some time figuring out a theoretically ideal combustion chamber, the so-called *Kegeldüse,* and had it built somewhere. He ordered, and after a long delay got, an expensive high-speed gyroscope which was never used. He moaned that he could not obtain methane easily—"we have it commercially pure home in Mediash from gas wells"—and that gasoline had to be used. The UFA announced that his rocket would rise to seventy kilometers, say forty-five miles. Oberth drew up plans for a rocket designed along the lines of a model theoretically discussed in his book—in between Shershevsky did some illustrations for that book, third edition, dedicated to Fritz Lang, and spent four days doing them, while any run-of-the-mill draftsman could have done them in six hours—and wasted Nebel's and a few other people's time making experiments with parachute releases which, incidentally, turned out well.

His program was not quite as muddled as it may appear from that description, but it was a program for about a year of work, with three or four months added for safety's sake, and he had five weeks left. Meanwhile the public waited for the Oberth rocket with an enthusiasm that is incredible even in retrospect. Even a photograph of the spot on the Baltic coast rented for the experiment sold well as a picture postcard. Then Oberth realized, or was made to realize, that time was short and changed all his plans. He designed a so-called primitive demonstration model, consisting of a metal tube with several sticks of coal in it, surrounded by liquid oxygen and dimensioned in such a way that the combustion of five inches of coal would use up just five inches of oxygen level. The coal sticks were to burn down from the top, the gases were to be exhausted through a system of nozzles to provide reaction. Oberth waved sheets of calculations proving that his proportions were correct. I explained the thing to eager reporters as well as I could, feeling awfully doubtful about twenty different points. Shershevsky praised the venture as "in the Bolshevist spirit of daring." Nebel muttered something about building a small model first, of "minimum size possible."

Oberth made more experiments, failed to find a material that would burn with the proper speed and was on the verge of a nervous breakdown. One night Shershevsky called me up, announcing laconically, "He ran away!"

It was incredible, but it was true. However, he came back a week or so later, offering no explanation for his disappearance. The rocket ascent was then officially postponed and the movie was launched with all the trimmings of first-night traditions. Nothing happened for some weeks and then Oberth left for home, releasing a statement that he would sue the UFA Film, Inc.

Years later, in 1934, he explained in a letter to the new president of the VfR, that he had not been master of himself all through that time. He claimed that that early explosion had given him all the symptoms of shell shock and that he had not completely recovered even then, five years later.

I did not feel at all happy at that time, even though the society's status looked good. According to a count in September 1929 the VfR had eight hundred seventy members, with new ones coming in every day. But these members wanted to know what had happened. I could not have told the true story even if I had been completely in-

formed—I wasn't—Oberth could not be reached for a statement, the secretary of the Berlin office, Patent Attorney Wurm, refused to do anything without Oberth's consent, the UFA made very guarded statements that meant nothing and the journal *The Rocket*, was a mess which made everybody angry.

This was one of Oberth's well-meant misadventures. Some people had written awful nonsense about rockets and Oberth had always wanted to reply. Thus, when Winkler—still hidden away in his confidential job—wrote him that he had to discontinue the publication of *The Rocket* because of lack of funds, Oberth promised and did give enough money to keep it going, under condition that he would get one section which he could use freely for criticism. Valier was on his list, but he started out with one Dr. von Hoefft in Vienna. Hoefft hit back, Oberth ditto, personal issues were dragged in and *The Rocket*, save for the nonbelligerent section I edited, was nasty to read. Factually, or rather theoretically, Oberth was right, but his articles did not sound nice. The Austrian branch split into two parts. One was von Hoefft, the other was Baron Guido von Pirquet, secretary of the Austrian branch, and a few others. The Austrian branch—generally regarded a branch although a separate society legally—died soon afterward. Shershevsky got up courage to go to the Russian consulate and ask for a visa for home. Winkler wrote me that he was compelled to discontinue publication of *The Rocket*. It was one sweet, big melee.

Then I met Nebel accidentally one day. He knew me and, assuming that I did not know him, told me who he was and what he was going to do. It was: He was going to found a society in order to continue the rocket experiments, he was going to get somebody to write a book to attract public attention. After he had lectured for half an hour I managed to tell him that there were at last half a dozen books and that there was a society which would be able to do something if it could only get hold of its president. Who? Hermann Oberth! It is still hard to believe, but Oberth had never informed his assistant either about the society nor about the literature on the subject, save for his own book which Nebel had not read, after finding it too highfalutin. (He used an equivalent Bavarian term.) After this revelation Nebel said that he would do something with the society that existed. He did.

Suddenly Oberth was back, fortified by his substantial wife. And Winkler appeared, feeling that his employer had cheated him—repetition of Valier and of Oberth—and in the spirit of vengeance he told what he had been doing. It turned out that his employer had been Professor Hugo Junkers—yes, Junkers Airplane Works, Dessau, Germany—and that they had worked on

the theory of a stratosphere rocket plane. In between they had launched overloaded airplanes by means of powder rockets. That experiment had been made near Dessau as early as August 1929 and had worked—Goering's *Luftwaffe* later used that method for their heavy bombers during the Battle of Britain. I may add here that soon after my arrival in the United States I felt it my duty to report on these experiments by writing about them in various aviation magazines. The articles were printed, but apparently nobody paid much attention to that idea with the probable exception of the Gestapo.

Well, there was a meeting in Mr. Wurm's office. Oberth was there and Nebel and several others, also a young engineer by the name of Klaus Riedel who had been a member of the VfR for some time. Riedel became important later on. He had a small private income, so that he could devote all his time to rocket work. He had a sound practical training although he was not too strong on theory and he had an absolutely inexhaustible reservoir of good cheer. We needed that permanent good cheer of his very much in the days to come.

The VfR had some money; it was used to purchase the remains of Oberth's work from the UFA—at a bargain price—and the Oberth rocket, a beautifully streamlined seven-foot monster, was assembled or the assembly paid for, I don't recall which. We were fairly sure that it would not work, but it was at least a nice showpiece. For about five minutes everything seemed fine, except that Oberth and Nebel shouted at each other occasionally. But Wurm and I managed to get them together, Oberth agreed to discard his rocket—but wanted to sell it as a showpiece to a circus home in Mediash—and Nebel's plan to build a liquid fuel rocket of the smallest size possible for basic tests was adopted. Oberth made a sour face but kept quiet. The new venture was called *Minimumrakete* or, abbreviated, *Mirak*. Nebel was to make a first sketch of it while the others tried to enlist the aid of a few semigovernmental agencies. For example the *Notgemeinschaft*—untranslatable—a kind of foundation which was to support scientific work of any kind. It turned out that they did not have funds as large as had been rumored and that the funds they had, had been pledged for archaeological excavations somewhere in the Near East. I suspected that they lied, and said so, but I was assured that there were actually no unpledged funds around for two or three years. Possibly it was true, archaeologists had a say in that foundation.

But another thing that could be done was to get a certificate from the *Chemisch-Technische Reichsanstalt*—Reich Institute for Chemistry and Technology. This government-sponsored institute did some work of its own, along the lines of the Bureau of Standards, but was mainly busy testing inventions and processes developed by outsiders and testifying as to their value. If we could get a certificate from them it would help tremendously. Yes, they were willing, the director, one Dr. Ritter, even ordered some of the institute's mechanics to help us conduct the test, strictly unofficially, of course, he was not supposed to spend the working time of his men without receiving full compensation.

The *Mirak,* drawn up by Nebel and patterned after a powder rocket with liquid oxygen in the "head" and gasoline in the guiding stick, had been built but did not function for some reason. But Oberth's *Kegeldüse*—"cone-nozzle," a somewhat misleading term—did and Dr. Ritter testified that it had worked without mishap for ninety seconds on July 23, 1930, and that it had produced a constant recoil of about seven kilograms, burning six kilograms of liquid oxygen and one kilogram of

gasoline.* It was a miracle that it worked at all. All through the test it poured, it had poured twenty-four hours before and still poured twenty-four hours later. I have never been so wet in my life, not even when swimming—and the test was conducted in the open. The testing ground was a pine forest, the tops of the trees were invisible, obscured by the low-hanging clouds.

Copy of Dr. Ritter's certificate in his pocket Oberth went definitely "home to Mediash," thinking nasty thoughts about everybody he had met. He assured me later in his letters that all of Berlin was a collection of cutthroats and stated that he would never begin experimentation again until he had complete plans down to the last rivet and bolt.

Max Valier relieved the gloomy atmosphere by going on the air with a talk in which he denounced his former work with powder rockets, and in which he said that he was now working with liquid fuel, just like the VfR—he was ready for reunion. Our own feelings were mixed, because Valier still clung to the ridiculous idea of the rocket car; his new vehicle had made a long but lumbering run on April 19, 1930. I met him for the last time in May, I think it was the 14th or 15th of May. Old Hermann Ganswindt was there, too, and we all felt that the old mistakes had been buried for good. Two days later I found a wire on my desk when I came home: Max Valier was dead. The rocket motor in his car had exploded, a large steel splinter had cut the aorta and he had bled to death in less than fifteen minutes.

A few days later the first *Mirak* functioned, i. e., it burned but gave no noticeable recoil. Valier's death had been tragic not only because it had stopped him when he was doing his first really serious piece of work; it also had a serious afterlude. There were cries to outlaw rocket experimentation. We sat together rather gloomily: first the failure of the Oberth rocket to materialize at all after a big publicity build-up, then the shattered hopes of having Valier back in the VfR—he had never officially resigned—and now the looming shadow of an unjust law. It never even became a bill, but it influenced a decision made mainly for financial reasons: Nebel and Riedel left for a farm near Bernstadt—Saxony—owned by Riedel's grandparents to find out why the *Mirak* had not worked. Wurm and I held the society together as well as possible by way of mimeographed information sheets and reported progress on the *Mirak*. In essence this is what we had to say: The *Mirak* burns, but does not deliver more than a pound or so of recoil; the *Mirak* now produces three or four pounds of recoil; the *Mirak* now produces more than its own weight, it would fly, even if not much, if it were released. And in September 1930: the *Mirak* has exploded, no harm done, a new one will be built at once.

Nebel and Riedel returned to Berlin, Winkler left on another "confidential job."

Then two wealthy members of the VfR revealed that they were wealthy. One of them, by the name of Rheydt, sent a large amount of money, one thousand marks and later the same amount. The other, a manufacturer by the name of Hugo A. Hückel, sent only a quarter of that amount, but promised five hundred marks every month if we would agree to send him detailed expense accounts, showing precisely what his money had been used for. He wanted no ordinary society expenses—postage, stationery or so—on his account, only purely "technological" expenses. If Nebel did not exaggerate, Hückel even refused to pay subway fare, telephone calls or delivery and freight charges. To meet his demands, the society's funds were spent for only such things as Hückel would not pay for and a campaign of "acquisition" was begun.

*1 kilogram equals 2.2 pounds.

It consisted of letters to manufacturers of things we needed, explaining what we wanted to do, why we had no money and asking for contributions not of money but of materials.

We got: two lathes, one drill press, two welding outfits, lots of small hand tools, nuts, screws and bolts, a typewriter and aluminum in sheets, rods, et cetera, et cetera. Somebody—Nebel or Wurm—wrote a similar letter to the tax bureau in a hilarious moment. It worked. We did not have to pay some minor taxes which were legally our due and the department of internal revenue waived taxes on the gasoline we would need, which brought the price down from about eighty cents per gallon to something like thirteen cents per gallon. And Nebel finally received permission to use a large and partly wooded place in the northern suburb of Reinickendorf as a proving ground. That place, called later *Raketenflugplatz*—rocket flying field or rocket airdrome—belonged to the City of Berlin, but it had some buildings on it that were under the jurisdiction of the Reich Defense Ministry. During World War I it had been an ammunition dump; then, in 1930, it was just a piece of land with securely locked, empty concrete buildings. We rented it for the sum of one mark per month—say four dollars per year—and were allowed to use the buildings under condition that we cleaned them out and made no changes in their structure—they had hardly any windows. The cleaning job was enormous, but it could be done.

It was easy to see why nobody had ever rented the fairly inaccessible place. It had only one poor road, was hilly and wooded in places. And the army ministry absolutely refused to permit anything to be done to its precious buildings. The City of Berlin had probably just forgotten about it.

The winter meant cleaning up, moving things, accumulating tools and equipment. The threatened law was forgotten, the bad effects of the Oberth-UFA publicity had worn off—the public just said "those newspapers"—and had even resulted in a receptive state of mind. By March 1931, we were ready to make the most of it.

This is, I think, a good place to interrupt the story and to review briefly what had been accomplished up to the end of 1930. After that an extended period of experimentation began and the founding of the *Raketenflugplatz* indicated the beginning of that new period.

When the VfR was founded in 1927, two primary goals were in the minds of the founders. The first was to spread the idea of space travel and to prove that no natural law opposed this idea. Furthermore, that the solution of this engineering problem did not have to wait for new inventions of a remote future but that the job, though admittedly big, tedious, expensive and even dangerous to a certain extent, could be started right then and there. The second goal had been to do preliminary experimental work.

By 1930 the first goal was accomplished, the leading men of the society had proved in various writings that the problem was soluble and soluble with the means at the disposal of modern technology, provided a sufficient amount of time and money was made available. A great deal of confusion had been cleared up, the theoretical groundwork had been laid. There is nothing to be added to the theory for many years to come, rather nothing *needs* to be added for many years to come. Oberth had also proved the most vexing of all questions, whether liquid oxygen and a fuel would perform as assumed in all the mathematical work.

Thus the founding of the proving ground came at the proper moment; it was supposed to fulfill the second goal of the society and it was founded when the first was accomplished.

TO BE CONCLUDED.

One-way Trip

by Anthony Boucher

It was a pleasant conceit they had in that warless world. They didn't execute a criminal; they sent him out into space on a one-way trip with no destination. But this trip did have a destination—

Illustrated by Kolliker

PROLOGUE

"Twenty years from the discovery of lovestonite before anyone finds a practical use for it; and it takes an artist to do it!" Emigdio Valentinez smiled the famous smile which the gossip writers called melancholy—or occasionally wistful—but which meant nothing more than simply a smile.

"Yeah, I know. That's swell. You got a nice set-up for tinkering here." Stag Hartle glanced around indifferently at the today literally Pacific Ocean and at the undulant dunes of sand, empty save for his two-seater copter. "You got fun out here?"

"Fun?" Valentinez smiled down at the curious object in his hand, a mirror in shape, but made of what looked like dark glass and surrounded with a complex of coils and tubes. "I suppose it is fun to do what you are fitted for—in my case to solve an age-old problem of art by a twenty-year-old discarded problem of science."

"Yeah," said Stag Hartle. "But that ain't all you're fitted for, and you know it. O. K., so you paint the greatest self-portrait ever painted. Who cares? The people, they've seen your famous smile plenty of times on the air, and that's enough for them. But if you'd come back to Sollywood and do the sets for S. B.'s epic on Devarupa—"

Valentinez interrupted him with three short sentences. "I do not like designing sets. I do not like the notion of an epic on Devarupa. I do not like Mr. Breakstone."

"Hold on, Mig. Climb down out of the stratosphere and be a human being. Think of the pleasure you can give people with solly sets that'd never see one of your paintings. Think of—" He lowered his voice to a seductive rasp. "S. B. said in confidence, mind you, and I shouldn't be telling you a word of this, but S. B. said he was willing to listen to any reasonable proposition. And when he says reasonable, Mig, I'm telling you he means unreasonable. How's about five thousand credits a week?"

Valentinez released a button on his gadget, turned it over, and contemplated the other side with satisfaction. "No," he said quietly.

"Six? Seven and a half?"

Emigdio Valentinez laid the mirror down. "It was nice of you to drop out to see me, Hartle. It was nice of you to listen to my fun-and-games with lovestonite. But now, if you don't mind, I'm going down to the cove. There's an effect of the sun on the algae there at this time of the day—"

Stag Hartle watched the departing figure of the man who was possibly the world's greatest living painter and certainly its most successful. He swore to and at himself with dull persistence for a good five minutes.

Then idly he picked up the lovestonite mirror and operated it as Valentinez had instructed him. Nice little gadget. Clever technician lost in that painter. Futile sort of gag. Nothing commercial, but—

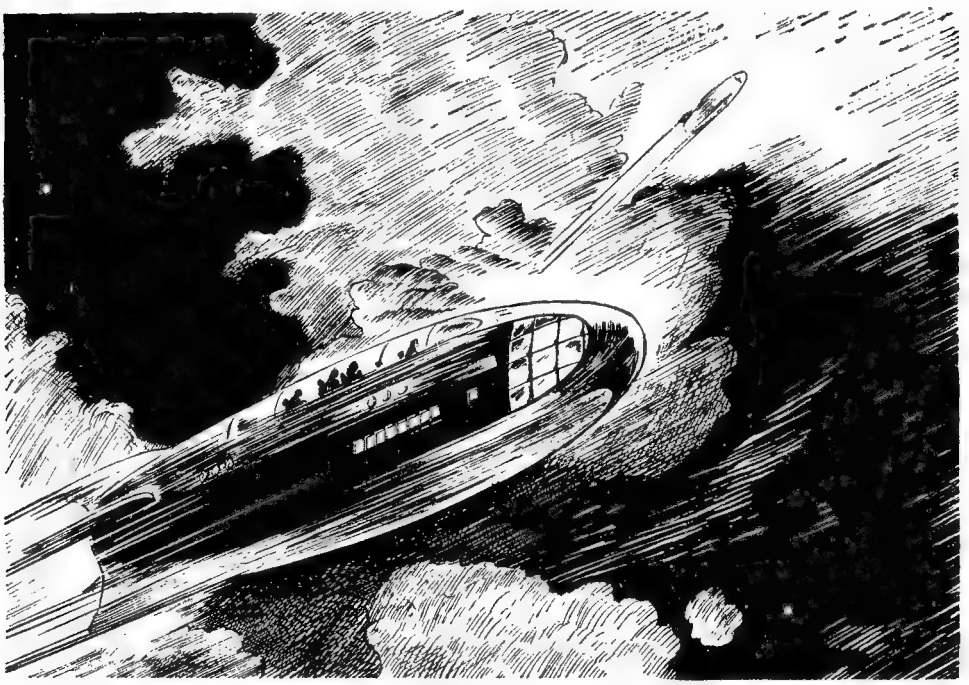
Stag Hartle opened his mouth wide and shut it again firmly. He carried the mirror out into the bright sunlight of late afternoon.

When he came back into the house, there was a grin of satisfaction on his face. It was hard to keep his eyes off the charred hole in the wooden porch outside.

He worked quickly. From his vest pocket he took that convenient clip-on cylinder which looked like a stylus, but unscrewed to reveal a stick of paraderm. He thrust it under his armpit and held it there until body heat had softened it. Then he carefully coated the inside of his fingers and the palms of his hands. He allowed it to dry and then flexed his fingers experimentally. The cords stood out in his powerfully wiry wrists.

He thought of historical sollies and the great convenience of knives and pistols. But no matter how Devarupian the world, a man could still kill if he had strong hands and no fear of a one-way trip.

Emigdio Valentinez added one more flick of his deft brush and then realized that the perfect moment had passed. Only one sixth of an hour out of the twenty-four when the light in this spot was exactly as it had been that day when he had halted transfixed and felt that



strange griping of his bowels which meant "This is it!"

He could fill the rest of his time satisfactorily enough. There had been the weeks of delightfully restful research on the lovestonite mirror, and now there lay ahead of him many more weeks, by no means restful, to be devoted to the object for which he had contrived the gadget—a perfect self-portrait.

He smiled, and smiled at himself for smiling. How fortunate, in all due modesty, is the artist who is a worthy subject for his own brush!.. He knew that in a way he was beautiful. He knew, and found a bitter sort of pleasure in the knowledge, that a girl's bedroom was far more apt to be adorned by a color photo of himself than by a reprolith of one of his paintings.

Well, this would combine the two appeals—his magnum opus. Though if ever he could finish this composition of rock and algae and water and sun—

Where he stood he could see nothing that was not a part of nature save himself, his palette and his easel. It might have been a scene out of the long-dead past. Cézanne, say, or some other old master might have stood thus in the sun back in those dim days when the advance of science was beginning with its little creeps. Painting is something apart from progress. He knew that he could never catch the sun as Cézanne had. He knew that not he, nor any other man living, could approach the clarity of Vermeer or the chiaroscuro of Rembrandt. He could make an overnight jaunt to the Moon if he wished, but he could not capture in paint the soul of Devarupa as El Greco had captured that of St. Francis. Art did not necessarily progress with progress.

And yet the lovestonite mirror might be the first true contribution of science to painting. He smiled, that smile that was not intentionally either melancholy or wistful, and started across the sand to his death.

I.

A tiny five-meter rocket flashed past the window of the stratoliner.

"Poor devil," the girl sighed.

Gan Garrett blessed the poor devil, whoever he was and whatever he'd done. For an hour he had been trying to think of some way of opening a conversation with his black-haired, blue-eyed traveling companion.

"I know," he agreed sympathetically.

"Living death," the girl went on. "Premature burial, like that funny obsession of horror you get in nineteenth century writers. That rocket shooting out, headed no place forever—"

"But what other solution is there?" Garrett asked. "If no one may kill, certainly the State may not. We have abandoned the collective mania of capital punishment as thoroughly as that of war. How else would Devarupa have had us treat those who were formerly thought fit to be executed?"

"Segregation?" the girl ventured hesitantly.

"If you recall your history classes, that didn't work so well. Remember the Revolt of the Segregated in '73? When you mass together all those who are undeveloped enough to wish to kill—"

The girl's eyes stared out into space, following the now invisible course of the one-way trip. "You're right, of course. It's the only way. But I still say, 'Poor devil.' You're headed for Sollywood?"

Garrett nodded.

"Actor?"

"Hardly. Technical expert for Mr. Breakstone's epic on Devarupa. I'm an historian, not unknown in my field, I must confess. You may have read my little work on 'The Guilt for the War of the Twentieth Century?'" His voice was arid and his bearing purely academic; despite his disclaimer, he had never done a more convincing job of acting.

There had been nothing dry or academic about Gan Garrett the day before

when he breezed into the office of the Secretary of Allocation. "The post office is going to raise the devil about your requisitioning me," he announced. "I was just getting on the track of the highjackers that've been operating on the lunar mail rockets."

"That's all right," the secretary said dryly. "I've been over your reports with the postmaster and he agrees with me that a subordinate can carry on from there. And we can't all have the services of Gan Garrett at once."

Garrett grinned. "Look," he interposed. "Don't tell me how good I am. I couldn't take it. But what's the new job?"

The secretary leafed through the dossier before him. "According to this, Garrett, you made the highest rating in the adaptability classes that the W. B. I. school has ever seen. You also displayed a marked aptitude for pre-Devarupian history."

Garrett nodded. "I liked those old times. I know how true Devarupa's ideas are, and yet there's something about the wanton recklessness of the old armed days—"

"Very well. You are going to Sollywood as a technical adviser on an epic now being prepared. No one outside of this secretariat will have the least idea that your job is not authentic; and you'd better be good at it."

"I'll run over my library tonight and take forty or fifty microbooks along. My visual memory'll see me through. But what's the real job?"

The secretary paused. "Garrett, do you know anything about lovestonite?"

Gan Garrett probed in his memory. "Let's see— Something about Australia. I think I remember: Scientists working a couple of years on finding some use for those deposits of a new clay found in the development of central Australia. At last this Lovestone hits on a method of making a vitreous plastic out of it. Everybody hepped up down under. Great hopes of a new industry. But nobody can find a thing to do with the plastic. Every function it can perform is handled easier and cheaper by something else. Some queer property with light—slows it down, or something—so steady small demand from optical and physical labs. Otherwise nil. Is that about it?"

The secretary smiled. "If you can do as well as that unprepared and out of your field, you ought to get by on your new job. Yes, that's the history of lovestonite—up till last month. Then all of a sudden a terrific demand from California. Imports jump around a thousand percent. The processing plant becomes a major industry. Of course, like all requests for raw materials, this was cleared through this secretariat. No questions at first, because there's such a surplus of the clay there was no need for regulation. But eventually we began to wonder."

Garrett whistled quietly. "Armslegging?"

"I don't see how. It doesn't seem scientifically conceivable that lovestonite could have any lethal powers. But there is something wrong. We queried the plant on what it was producing with lovestonite. They said mirrors."

"Mirrors?"

"I know. It doesn't make sense. A lovestonite mirror is possible, I suppose; but it would cost double anything that's on the market and wouldn't work so well. So something is wrong. And when anything is wrong in California, you know where to learn the secret."

Garrett nodded. "Sollywood. The whole State's just a suburb to that."

"So—" The secretary opened a drawer and took out a small and gracefully carved plesiosaurus. At the top of the delicately curving neck was a gold collar from which a small chain ran. "You never wear jewelry on your identification bracelet, do you?"

Garrett shook his head. "Function where function belongs. No trimmings."

"But you'll wear this. It's by Kubicek, one of his best, I think. He says lovestonite is a surprisingly good vehicle

for carving. It might help to start conversations. Beyond that, you're on your own. No instructions but these: Do a good job as technical adviser, and find out what's going on in California."

The head of the plesiosaur was typical Kubicek. It had, not the anthropomorphic cuteness of gift-shop animals, but a prehistoric richness of reptilian knowledge and cynicism. "Between us," said Gan Garrett, "we'll find out all there is to know. And I hope," he added, "that it is armslegging."

The girl was looking at his mascot now. "That's a nice thing. Kubicek, isn't it? I usually somehow don't think much of men who wear jewelry on their identification bracelets, but that's such a lovely swizard."

"A what?"

"That's what I used to call a plesiosaur when I saw pictures of them when I was little. They looked like part swan and part lizard, so I called them swizards. But what's it made out of? That isn't a natural stone, and it doesn't look like any of the usual carving plastics."

"It's lovestonite."

"Oh," said the girl.

"Odd stuff," Garrett went on. "Not much use for it ordinarily."

"Isn't there?" There was an odd tone of suggestion underlying her remark.

"Is there? I'd never heard of any."

"I don't know. . . . I'm damned if I know," she said with quite disproportionate vigor. Her blue eyes flashed with puzzled irritation. "Damn lovestonite, anyway."

Gan Garrett held himself back. A technical authority on history should not be too pryingly eager with questions.

The girl changed the subject abruptly. "So you're an authority on the War of the Twentieth Century? That must be exciting, kind of. I haven't read so much serious history, but I know all the Harkaway novels. It must have . . . there was so much *to* living in those days."

Secretly Garrett almost agreed, but he replied in character. "Nonsense, my dear girl. Those were days of poverty and oppression, of want and terror. Science had turned only its black mask to us then; the greatness of man's intellect was expended on destruction."

"I know all that. But think how much more it meant to be alive when you were face to face with death."

"No. There is nothing glamorous about death from malnutrition, nor is there anything colorful about being blown to bits by a bomb."

"Don't be stuffy."

"I'm not being stuffy. We invest the past with glamour; we always have. We say 'Mustn't it have been wonderful to be alive in the days of Elizabeth! Or Napoleon, or Hitler?' But the only good thing about the War of the Twentieth Century was its total badness. Only such complete evil could have prepared the world for the teachings of Devarupa."

The girl looked sobered for a moment. "I know. Devarupa was . . . well, wonderful. But I've never thought he meant peace quite like this. He must have meant a peace that was alive—that gave off sparks, that made music. Peace isn't just something to wallow in. Peace has to be fought for."

"You're Irish, aren't you?" said Gan Garrett dryly.

"Yes; why?"

"It takes the Hibernian to produce that kind of statement. An Irish bull, technically, is it not? It was an Irish scientist on our faculty who told me that microbes are tiny all right, but a virus is littler than a dozen microbes."

She laughed. "I know. I sound like the old Irish gag about 'There ain't gonna be no fightin' here if I have to knock the stuffin' out of every wan of yez.' I know; my dialect gets mixed. But the whole world's mixed now—and how is it we Irish still manage to stick out? Still, what I said is true, even if it does sound funny."

"It's been tried," said Garrett as his-

torian. "The Pax Romana worked that way: Peace, ye underlings; or Rome will crush you to the ground. But the Empire weakened and was itself crushed, by its own chosen means of force. Peace has to be rooted in something deeper than fighting."

"Something deeper, yes. But you need the fighting, too. If people still had the guts to fight, we'd have a colony on Mars by now. But they'd sooner sit on their cushions and sew a fine seam. Maybe the world was better when there were weapons and—"

"The W. B. I. still has weapons."

"Those . . . those popguns?" The girl's eyes flashed, and she tossed her black hair. "And what do you know about the W. B. I., anyway, you . . . you academician?"

"Nothing, my dear," the W. B. I.'s most capable agent admitted gently.

"Then shut up!"

They traveled the next half hour in silence. The ship's windows proffered no view but a sea of clouds. Beneath those clouds, Garrett calculated from his watch, lay the opulence of the reclaimed deserts of the Southwest; a few more minutes and—

He turned again to the girl. Her reaction to lovestonite made it imperative that he keep in touch with her, even if other motives had not contributed their share to his desire. "You live in Sollywood?" he ventured.

"What do you care, you *historian?*"

"But do you?"

"Of course not!" she snorted. "I live in Novosibirsk and I'm flying out here for a beam test."

The ship dipped down through the clouds and emerged into rain. Fine drops streaked the window, but far below Garrett could glimpse some of the infinite variety of locations that comprise most of southern California, all dry and aglow with light under their vast domes.

The girl looked out at the rain. "Welcome to California," she said. "And I hope you drown."

Gan Garrett detached his identification plaque from its bracelet and placed it in the slot by the imposing entrance to Metropolis Solid Pictures, Inc. The beam filtered through his set of perforations, and the door dilated. No query; the combination must have been set to his perfs as soon as he was hired.

He stepped inside, apparently still in the open air but now out of the rain. Five moving sidewalks started off in different directions from this entrance, and he hesitated, studying the indicator.

A life devoted to all the works of the W. B. I., and especially to the suppression of armslegging, had heightened the rapidity of Garrett's reflexes. His movements were economical, but automatic and swift. Thus, he now found that he had, almost without knowing it, moved his body a few centimeters to the right and drawn what the black-haired girl had called his "popgun." Stuck fast in the center of the indicator quivered a knife.

Even Garrett could not repress a slight shudder at the narrow squeak. He whirled about, stooping and weaving as he did so with that skilled technique of his which disconcerted any but the finest marksman. There was not a soul in sight in this open area.

Calmly Garrett plucked and pocketed the knife and chose the proper sidewalk. The episode in one way had told him nothing. Anywhere but in Sollywood the very existence of a weapon would have had its significance, since the careful manufacturing regulations of the Department of Allocation permit no allotments of material for weapons save those such as Garrett now held in his hand. Even these are carefully controlled, and every one that has ever been manufactured is by now either outworn and destroyed or on the person of a W. B. I. man.

They are not lethal, these "popguns." They are compressed-gas pistols using carbon dioxide to fire a pellet filled with needlelike crystals of comatin, that most powerful and instantaneous of anæs-

thetics. They are, as is inevitable in a Devarupian world, purely a defensive weapon.

But the makers of sollies need to give the effect of lethal weapons in their historical epics; and they can secure permission from the Department for Metal to make plausible replicas. These weapons must by strict statute be nonlethal, blunt in the case of swords or daggers, the barrels blocked in the case of firearms; and rendering them lethal is an offense earning a one-way trip. But once the metal allocation has been secured, a desperate man will take his chance on lethalizing a prop weapon. So here the existence of a lethal dagger was no surprise.

He remembered stories of the past in which detectives examined weapons for fingerprints. They would be no help here, either; the criminal who neglected to use paraderm, so much more convenient than gloves, had been unheard-of for a century. The sole use of prints was no longer criminological, but in problems of civilian identification.

Still, he would keep the dagger; as evidence, he told himself, hardly daring admit that there was something consoling about carrying a forbidden weapon. For the one item of significance which the attack revealed was this: There was a leak somewhere. Someone in Sollywood knew that he was more than a technical adviser. And that in turn meant that the lovestonite problem was quite as important as the secretary had feared.

Garrett fingered the lovestonite plesiosaur. Swizard, that girl had called it.

Sacheverell Breakstone, the great man of Metropolis, received Gan Garrett in person. He did not wear the usual native costume of this district—the slack trousers, the open shirt, and the colorful ascot which dated back to him tradition long before the invention of solid pictures. His costume, Garrett realized, went back even further—the woven sheep's wool coat, the cloth headpiece with the rear projection, the leather leg casings. It was a curious anachronistic survival, but it was becoming to the short stocky body of S. B., lending him a certain outrageous dignity.

"Welcome to Sollywood, Garrett," he began. "Hear you're the great man in your field. Well, we'll get on. I'm the great man in mine, and we'll understand each other. And this is going to be beyond any doubt the greatest epic ever beamed even by Metropolis. Even as a personally supervised Breakstone Production. Devarupa will be proud of us from wherever he's watching. And he'll be trusting us, trusting me and trusting you to tell the truth about his life and bring his supernal message afresh to all mankind as only the greatness of the greatest art form of the centuries can bring it!"

"Yes, sir," said Gan Garrett. There seemed to be little else to say.

Sacheverell Breakstone needed no prompting. "Yes, my boy," he went on, "truth is what we want from you. Truth and accuracy, but especially truth. Don't spend too much worry on niggling little details. Supposing—mind you, I'm just thinking aloud—but supposing we put a woman in the picture. Now you and I know that there wasn't any woman in Devarupa's life. That's accuracy. But he loved all humanity, didn't he? And aren't women more than half of humanity? So if we show him say loving a woman—you understand this is just groping with words—isn't that truth in the deeper sense? You understand?"

"Yes, sir. I am here to give the cachet of academic authority to all the nonacademic changes you wish to ring on the story of Devarupa."

Breakstone hesitated, then burst out into a heavy laugh. "Good man. You do understand me. No pretense about you. We'll get on, we will. You can understand the creative mind. Because that's what I am, mind you. All this"—his broad gesture included every bit of Metropolis—"is my creation. And the creative mind creates its own truth which is higher than facts. All my life

I've wanted to do a life of Devarupa—with all due reverence, you understand, but still showing that he was a real man. A man of and for men. And I'm the man to do it. They don't call me the Little Hitler of Sollywood for nothing."

Garrett smiled to himself. No one with any knowledge of Twentieth Century history could well consider a "Hitler" the ideal interpreter of that saint among men, the great Devarupa. But the evil that conquerors do may often be interred with their bones; he remembered from literary study how Caesar and Napoleon had become just such metaphorical figures of power, with no allusion to their manifold infamies.

"Well," Breakstone announced, "it's been wonderful having this talk with you, Garner."

"Garrett."

"I said Garrett. It's been a pleasure to hear your ideas on Devarupa, and that's a real suggestion of yours about the woman. You're no hidebound academician, I can see that. Now if you'll take the left-hand walk for about two hundred meters, you'll find Uranov's office. He's working on the script today—his third day, in fact. He's lasting well. You talk it over with him. And enjoy yourself in Sollywood."

Garrett let the swizard jangle as he shook hands with his boss. Breakstone glanced at it. "Hm-m-m. Nice thing. Dinosaur of some kind, eh? Odd material; what's it made of?"

"Lovestonite."

"Lovestonite? Well, well. What next? The motto of Metropolis, by the way; remember that. What next? You understand? Always something new. Come see me any time you're in trouble, but you won't need to. Not you. We understand each other. Good luck." Even as Garrett left, the Little Hitler of Sollywood had pulled several switches and begun dictating a letter to the Department of Allocation, giving instructions to a set designer, and receiving from his Calcutta exhibitor.

The few people that Garrett passed on his way down the writers' corridor looked fretful and hagridden—almost like men from the Twentieth Century. The responsibility of turning out the major entertainment device of the world weighed heavily upon them. For though Breakstone's description of the "greatest art form of the centuries" might have been exaggerated, the solid picture was certainly the most widespread and important. With its own powerful impact, plus the freedom of a World State and the world-wide spread of Basic English, it had attained an influence that even the old two-dimensional pictures had never known.

Garrett heard a rich, deep voice behind the door as he knocked. There was a pause, and he held up his plaque for scrutiny through a one-way glass. The door dilated, and as he entered the room's occupant turned the switch on his dictotyper which altered it from recording to turning out a typed script.

"So!" said Hesketh Uranov. "You're S. B.'s newest find. You're the bright boy that's to ride herd on me, huh?"

Uranov represented the new interbred type that was rising to dominance in the world. It was rare by now, of course, to see any sample of such a pure racial type as the sheer Irishness of the black-haired, blue-eyed girl in the liner—doubtless a fortuitous throwback—but it was almost equally rare to see such a successful fusion as Hesketh Uranov. His skin was a golden brown, closest perhaps to the Polynesian, but not exactly that of any pure racial type. His aquiline nose, his thick lips, his slightly slanted eyes seemed not so much a heterogeneous collection of racial fragments as the perfectly right lineaments of a new race.

Garrett was still trying to find the friendly response to this unfriendly greeting when Uranov said "You drink? I thought not. Historian— However." He upended a bottle. "Stay in Sollywood long enough and you'll learn worse than this, my boy. What're you sticking

your hand out for? Can't wait to get your researcher's fingers on my script?"

"All I want," said Garrett patiently, "is that bottle." He took it.

After that swig, Uranov looked at him with new respect. "Maybe you're all right. But I doubt it. S. B. sent you."

"Look," said Gan Garrett. "I've seen S. B. for only five minutes. I've heard about you as Metropolis' ace writer for five years. So you have—sixty times twenty-four times three hundred and sixty-five—you have roughly half a million times as much cause to dislike him as I have. But I'll still enter the race with you."

"O. K.," said Uranov. "Don't mind if I bark. I just don't like anybody much these days which is, of course, the perfect mood in which to approach a script on Devarupa."

"What're you doing to that script?" Garrett sat down, near the bottle. "S. B. babbled something about a woman."

Uranov groaned. "I know. These epics have the highest erotic value of any form of entertainment yet created. You probably know the old varieties of theater. Imagine how a burlesque audience would have reacted if its queen were ten times life size and visible in detail from the top of the gallery. Imagine how the flat film fan would have felt if his glamour girls had had three dimensions and the true color of flesh. So we mustn't waste these possibilities and there's got to be a woman. I'm trying to tone her down; just a loyal disciple with a sort of hopeless spiritual love. But S. B.'s got his eye on Astra Ardless for it; and have you ever thought of what it'll be like to tone that last year's space-warmer down?" He took another drink and this time handed over the bottle unasked.

"Garrett," he said, "you're not going to believe this. But in some twisted, crazy and very damned beautiful way I'm proud of this assignment. Sure, I know, I'm the guy that was going to write for posterity and here I am making a fortune under a dome in Sollywood and drinking my liver out of existence. But some things are still important to me, and Devarupa's one of them. People take him for granted now. They take for granted the whole state of peace that he created. They're forgetting that peace itself is the greatest of all battles. What I want to do—"

The dictotyper pinged. Uranov removed the finished copy, looked at it, and crumpled it up with a curse. Then he smoothed it out again and laid it on his desk. "It might do. I can't write this right; but I'm going to die trying. What I want to stress is his early years. Even before that. I want to show the false peaces in the War of the Twentieth Century, the '19 to '39 gap, for instance. The way the smug sat back and said 'Swell, it's peace, now there's nothing to worry about.' And you stop worrying and you cease to belong to mankind. Then I want to take some of Devarupa's own utterances—the Bombay Document, for example—and show the real fighting strength that's in them. I've got to make these dopes see that pacifism isn't passivism—while S. B.," he added despondently, "bewitches the whole thing up with our darling Astra."

Garrett drank. "I'm with you," he said simply.

"What I'd even like," Uranov went on heatedly, "is to work in a little propaganda at the end on this Martian business—show how a true living peace can function. You know, a sort of 'Join the space crews and see another world' whoozit. And, God, there is something you can get really excited about. To think of those—how many is it, near thirty now?—who've made the landing, accomplished man's impossible dream, and died there, on a bitterer one-way trip than any criminal ever made, all because this peaceful world—"

He broke off as Garrett was reaching for the bottle again. "Sorry. I talk too much. And in another minute you'll be asking me why I don't sign up myself if I feel so strongly. For the matter of

that, why don't I? Nice swizard you're wearing there."

"Very. It's a Kubi— Hey! Did you say swizard? Then you know her?"

"Know who?"

"The girl who used to call them swizards when she was little. Black hair. Blue eyes. Funny little nose that tilts up. You know her?"

Uranov frowned. "I know her," he said abstractedly. "Works here in public relations. Fix you up any time, though how you— But what's your swizard made of? Lovestonite?"

"Yes."

"Funny use for it. Why, you don't maybe—" He killed the bottle. "If we're going to get together on this, comrade, you know what we need? A drink. Come on. We're going to paint Sollywood a bright magenta and end up seeing pink swizards. And maybe before the evening's over, we'll even have a talk about lovestonite."

"I should just warn you," said Gan Garrett. "Don't mind if a dagger hits you. It'll be meant for me."

But the next attack was not made with a dagger. It took place hours later when they were leaving the Selene, that resplendent night spot with its exact replica of its famous namesake in Luna City, even down to the longest bar in the universe—a safe enough statement so long as no spaceship had yet managed to return from another planet.

"In a way, you can't blame S. B.," Uranov was saying. This surprising tolerance was the only noticeable effect on him of the evening's liquor. "He's a frustrated creator. He'd flopped as a writer and as a musician before he discovered his executive talents. He hasn't a spark of the creative ability that I used to have or that a man like Mig Valentinez has; but he's got all the urge. And he takes it out in shoving around the ones who can create and then crying, 'Behold my creation!' In a way, it's sad rather than—"

The man appeared out of nowhere. He wore a heavy cloak and was only a black blob in the bright night. The flash came from the core of the blackness of his cloak, and there was no noise with it.

Gan Garrett's eyes blinked as he jumped, his popgun appearing automatically in his hand, and when they opened, the man was gone. Ten minutes of joint search failed to disclose him, though his cloak lay abandoned around the next corner.

"Did you see what he had in his hand?" Uranov asked. "It looked like a prop pistol from an historical picture. But it didn't—" He stopped by the wall where the attack had happened, stared, and whistled.

Garrett looked at the charred xyloid.

"Could it—" Uranov groped. "It can't be that . . . that somebody has really found the power of disintegrator guns, like in that world-of-the-future epic I turned out last year?"

Garrett rubbed his cheek. "I felt something. I didn't dodge quite enough to—"

"Look, my boy." Uranov was serious. "I thought it was a gag when you babbled about daggers. I don't know what this lad was playing, but it wasn't nice games. You're the best drinking companion I've found since Schwanberg quit epics to make a hopeless try for Mars; but if I'm to see much more of you, I want to know who's trying to kill you and why."

"So do I," Garrett grunted. "But first"—he played with the swizard—"what do you know about lovestonite?"

"Just enough to worry a little. I know that there's an irrational amount of lovestonite processing going on, and I know Stag Hartle's mixed up in it, which means no good. And I know that the . . . that some people I know are concerned about it."

"Can you tell me any more? Or can you put me in touch with anyone who can?"

"A, no. B, yes. This is, of course, all part of your technical-historical research?"

Garrett grinned. "I guess research workers don't go armed, do they? Nor have new lethal weapons tried out on them. Hardly much use to keep up the masquerade for you."

"W. B. I.?"

"Check."

"Come on home with me," Uranov decided suddenly. "God knows what kind of booby trap they may have rigged up where you're staying. You can explain it all right at the studio—we wanted to live together for closer collaboration on the epic. And tomorrow we'll see what we can do about more information. You know Mig Valentinez?"

"I know his work." Garrett sounded a little awed. "He's marvelous."

"I haven't seen him for a couple of months, but I know he was playing around with lovestonite. We can run down there and— But first, comrade, how about a nightcap?"

Garrett woke from a confused dream of a naked Irish girl who was riding tandem on a swizard with a man with a melancholy and wistful smile. The swizard was of the fire-breathing variety, and its breath was searing hot on Garrett's cheek. The cheek still burned when he was wideawake and looking up at the multiracial face of Hesketh Uranov.

"Sleep all right? No hangover?"

"None. But I've got the damnedest sensation here in my cheek—right where whatever it was missed me. Do you suppose it was an atomic weapon, and this is like a radium burn?"

Uranov bent over and stared at the cheek. When he rose he was half-laughing, half-worried. "I don't know what we're getting into," he said. "I should stick to my dictotyper and leave melodrama and lovestonite to the W. B. I., or to the . . . those friends I mentioned. Because this is nuts. Purely nuts."

"Yes? What goes?"

"What you received from the new lethal weapon, comrade, is nothing more nor less than a very nasty patch of sunburn."

II.

Uranov paused on their way to the research lab. "Want to watch 'em shooting? That's usually a thrill to the new visitor."

Garrett rubbed his salved but still burning cheek. "I've got thrills enough."

"Just for a minute. Then you can talk more plausibly when I tell S. B. I've just been showing you around."

A red light glowed in front of one of the studios. Their plaques admitted them to the soundproof observers' gallery. "This is an interior, of course," Uranov explained. "Exteriors are all shot outside under dome, some of them here at the main plant, most of them on the various locations. You probably saw them from the ship?"

Garrett nodded.

"California's amazing enough naturally, and after our landscaper's went to work— It's really extraordinary. We can shoot any possible aspect of the world's surface, and we have a condensed replica of every city of any importance, from Novosibirsk to Luna City. Southern California is the world in miniature; destroy the rest of civilization, and an archaeologist could re-create it all from our locations." There was a certain possessive pride in his voice, despite his avowed contempt for Sollywood.

"All the shooting is under dome?"

Uranov nodded. "The cameramen say sunlight through dome is better than direct, and there are never any delays because of weather. The sky clouds over, and your artificial light comes on automatically at exactly the right strength."

Garrett looked down at the shooting interior. To judge from sets and costumes, it was a scene from a glamorous drawing-room comedy—probably the standard plot about the beautiful hostess

on the lunar rocket who marries the son of the owner and longs fretfully for her exciting old life until she finds her true self in domesticity. There were only two actors in the scene. The man he recognized as that charmingly suave Eurasian Hartley Liu, but the woman— He glanced at Uranov questioningly.

"Astra Ardless," said Uranov. "Looks older, doesn't she? But wait till you see what those cameras make of her."

She did look older than Garrett had ever seen her on the beam. But that was not too surprising; he had fallen adolescently in love with her when she first became famous, and that was almost fifteen years ago. She looked older and not nearly so glamorous, and yet in a strange way more beautiful. There was a quality of resigned sadness about her.

To fans all over the globe, only actors mattered. The heart that pounded at the thought of Astra Ardless or Hartley Liu, would never have heard of a writer such as Uranov or even a producer-director such as S. B. And even Garrett, more intelligently perceptive than the average fan, had never realized how outnumbered the actors were on the set.

Two of them, and sixteen cameramen, to say nothing of the assistant technicians and prop men and the sound engineers dimly glimpsed in their niches in the opposite wall. The synchronized cameras all shot the scene at once from their sixteen different angles. Later those sixteen beams would be cast from sixteen similarly placed projectors onto a curtain of Cassellite, that strange, translucent, solid-seeming gas which had made the epics possible.

A slightly false inflection on the part of Astra Ardless' speaking voice, and perhaps one critic in Kamchatka or Keokuk might notice it and observe that Miss Ardless was slipping. One slightly false adjustment on the part of a single technician, and the entire scene would be so much junk.

"Actors don't really count for much, do they?"

"I don't know," said Uranov slowly. "Sometimes I think they're a bunch of built-up parasites, and yet— It's like wondering if the individual counts for much when the world state is so perfect. You get into trouble— But come on. You've seen enough to make talk with S. B. Now let's call on Doc Wojcek."

They had apparently interrupted a scene when they entered the laboratory. There was dead silence. The bald but sturdy-looking scientist fiddled uncomfortably with the articles on his desk, and seemed loath to raise his eyes to the newcomers. At last the sharp-faced man with the brilliant ascot—unusually brilliant even for Sollywood—said: "Hi, Hesky."

"Hi, Stag." There was no friendliness in Uranov's voice.

"S. B. wants to see you."

"I know. Be there in a minute. Just showing Garrett here around the works."

The sharp-faced man rose. His hand rested for a moment palm up on the table. "Well, doc? All clear?"

"All clear," said Dr. Wojcek hesitantly.

"Then I'll be going. See you around, Hesky."

Something stayed in the room after his departure, an almost physical aura of oppression. "Who was that?" Garrett asked.

"Stag Hartle," Uranov explained. "One of our choicer jackals. Got his name because he started out in Sollywood bootlegging stag epics—you can see the possibilities in them? One of his actresses died of what he put her through—"

"And he never made a one-way trip?"

"Something happened. Strings— Nothing ever proved. Stag knows how to make himself useful. But he's theoretically leading a reformed life now."

Garrett could still see that hand palm up in the bright light of the laboratory. To the trained eye, the traces of paraderm on the fingers were clearly visible.

Those who lead reformed lives do not usually need to conceal their fingerprints.

"I wonder—" said Dr. Wojcek.

"Sorry. I got sidetracked. Dr. Wojcek, this is Gan Garrett. New technical adviser on history. I'm showing him around the plant—thought he'd like to see your set-up."

Wojcek nodded. He shrugged his shoulders as though to cast off the burden of Atlas. "Of course," he began, "we don't do any interesting theoretical work here—all purely practical study of needed technical developments. But still we have some odd angles. For instance—" As he spoke, his depression lifted. His absorption in his work outweighed his cares, and he was a brilliant and charming guide through the wonders of the laboratory.

At last, "Do you do much work with lovestonite?" Garrett asked casually.

"Not to speak of," said Dr. Wojcek.

Uranov made a curious gesture with two fingers.

Dr. Wojcek lifted one sparse eyebrow. "But a little," he added. "In fact, I've been carrying on some rather interesting experiments lately. Do you know much about the properties of lovestonite?"

"Very little. I'd gathered that it had practically none worth speaking about."

"From a commercial point of view, young man, that's true enough. But it does have one interesting characteristic." He led them over to a corner of the laboratory where a dark sheet of vitreous plastic, like the material of the swizard, stood in a frame. Wojcek stationed himself beside it like a lecturer in a class. "Now what, gentlemen, is the speed of light?"

"Three hundred thousand kilometers per second," Garrett answered automatically.

"True, but not wholly true. Three hundred thousand kilometers per second—in what?"

"In what? Why, in air, I suppose."

"To be precise, in a vacuum. For practical purposes, it is the same in the ordinary atmosphere. And the speed of light is such a convenient constant in theory that we tend to think of it as a constant in fact. But in water, for instance, the speed of light is only two-hundred thousand k. p. s., and in carbon disulphide, a mere hundred and twenty thousand."

"And in lovestonite?" Garrett asked.

"In lovestonite, normal untampered-with lovestonite, the speed of light is only seventy-five thousand kilometers per second. Now the differences in these speeds are not noticeable to the naked eye." He passed his arm behind the sheet of lovestonite. The plastic was dark but transparent, like smoked glass. "You perceive, of course, no difference between the parts of my arm behind and outside of this sheet, though actually you see one about one one-billionth of a second later than the other. The difference is large in theory, but negligible in fact.

"However, we have discovered one practical use for this difference. A lens made partly of normal glass and partly of lovestonite produces a very curious photographic effect. The result does not seem out of focus, but somehow just the least but—how shall I put it—perturbing, *wrong*. We spent months on the exact structure of such a lens, and I think the results have been most satisfactory. You recall the supernatural scenes in 'The Thing from the Past'? Well, their incomparable eeriness which the critics praised so, was due to the use of part-lovestonite lenses." He paused.

"And that's all you know about lovestonite?"

Dr. Wojcek hesitated, and again Uranov gestured. "Well, I . . . I did make an interesting discovery quite by accident. My assistant was carrying on some other work near the lovestonite while I was engaged in some measurements, and we found that an electromagnetic field exerts a startling effect. It varies, of course, with the density of the field and the direction of the lines of force, and we have by no means ex-

hausted our experiments as yet—" He stopped, with a sudden shock of realization.

"Go on."

"Yes— Yes— We have been able to increase the speed of light through lovestonite almost to the normal three hundred thousand, and to reduce it to as low as five thousand. The possibilities are—" He broke off again.

Garrett put his reaction together with the scene they had interrupted. "So Stag Hartle has given you orders to lay off the lovestonite experiments?"

Dr. Wojcek did not reply with a direct yes or no. "What can I do?" he asked, expecting no answer. "Hartle has influence. My business here is to do what I am told, not to pursue promising lines of experimental theory."

Garrett frowned, thinking over this newest fact on lovestonite, and toyed with his swizard. "It still doesn't help," he thought aloud. "Not obviously. What do you think about these lovestonite mirrors?"

"I've heard they're being manufactured. I can't imagine why; the idea's ridiculous."

"Thanks," said Garrett. "Thanks a lot. This has been a most interesting—well, we'll say visitor's tour."

"And now," said Uranov, "we'll pay our respects to S. B., or he'll be wanting to know how we think we're earning our credits."

"Ah, boys," Sacheverell Breakstone greeted them. "Glad to see you. Getting acquainted with the place, Garrett? Coming to understand how we do things here? Fine," he went on before Garrett could answer. "Glad to hear it. And now to business. You may have heard I'm going away for a while next week. We're shooting the big scenes in 'Lurazar' on location on the Moon. I think they need my personal supervision. Astra finishes her current epic today, and as soon as we can get under way—But what I wanted to say: I expect to see a shooting script when I get back. Stick close to him, Garrett. Don't let him idle. And I don't want either of you to be leaving Metropolis until then. You, Uranov, pay special attention to that suggestion of Garrett's about working in a woman—rather Astra's type as he described her. Maybe she could motivate him. Supposing—I'm just groping with words, you understand—she might be a Siberian general who—"

Hesketh Uranov listened patiently while S. B. twisted some of the most stirring events in history into a vehicle for Astra Ardless. Garrett frowned to himself. If his orders were to confine himself to the Metropolis lot, and he was bound to subordinate his real job to his apparent one, though he hardly needed to avoid suspicion any longer when knife throwers and practitioners with secret weapons—

"That'll be all," S. B. concluded. "I always find these conferences stimulating. You understand? Free interchange of minds. And I'll want that script when Astra and I get back from the Moon. Meanwhile, you stick here. Both of you."

"Mr. Breakstone," Garrett asked with academic diffidence, "who is designing the sets for the Devarupa epic?"

"Tentatively Benson." S. B. did not sound contented.

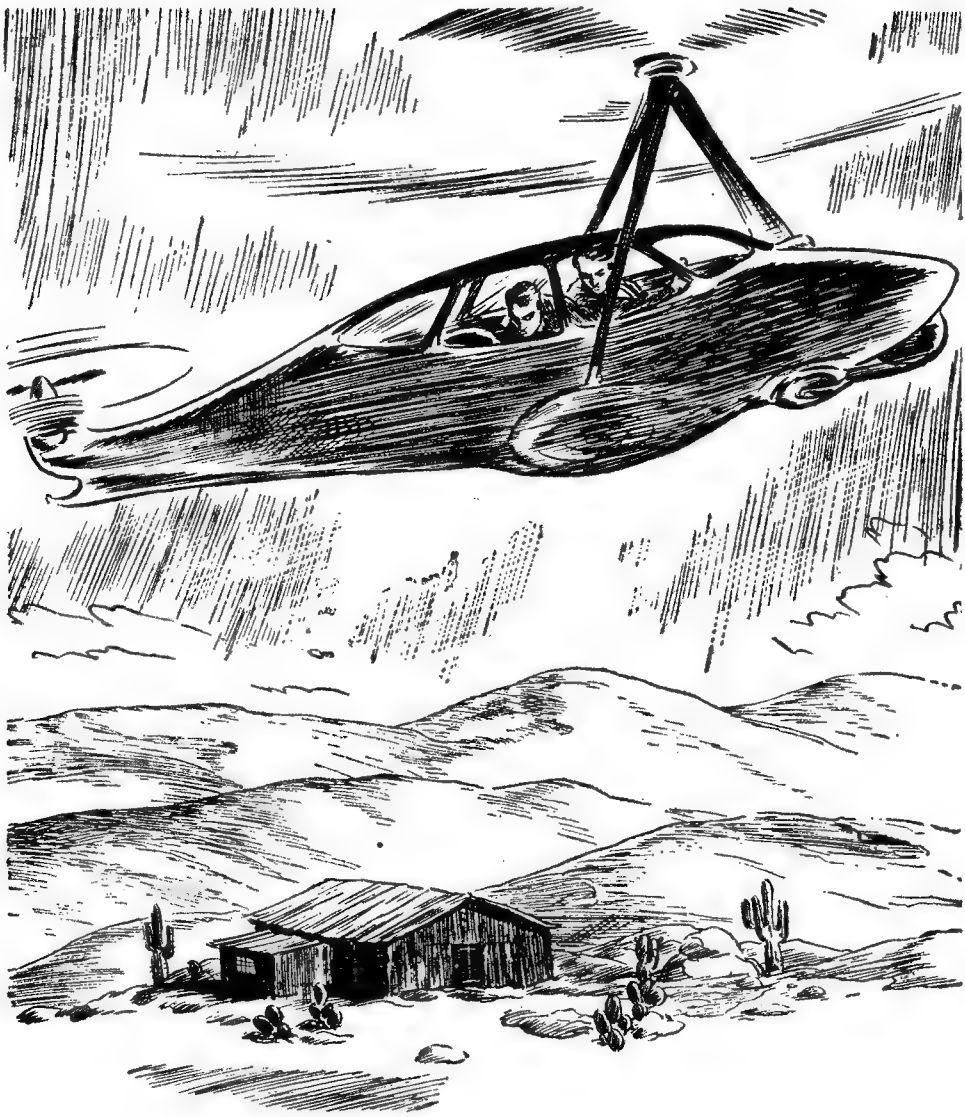
"If I may offer technical advice, it seems to me that Emigdio Valentinez's knowledge of the period and great artistic ability—"

"I know. I know. I'd mortgage half the studio to get Valentinez for the job. But he's gone hermit on us. He won't listen to—"

"He might listen to me," Garrett lied quietly. "We're old friends. Don't you think it might be worth our while for me to run down to his place? Uranov can drive me, and we can work on the way?"

Breakstone grunted. "Fine. Fine. But remember the deadline on that script."

Uranov's two-seater copter was laden with swank gadgetry, most of which



served to indicate his position in Sollywood rather than any practical need. It rode well, however, and made the trip to Valentinez's beach retreat in about ten minutes.

"I hate to drop in on Mig unannounced," said Uranov, "but he hasn't a televisor or even a blind phone and he won't open mail. He said he was coming out here to solve a problem—artistic, I think, rather than personal—and the hell with all the complications of progress. That was a month or two ago and nobody's heard a word from him since. Neat trick of yours, by the way, to get S. B. to turn us loose."

"We might bring it up at that," said Garrett. "Valentinez would be ideal to design that epic."

"Bring up your lovestonite problem first. If you mention S. B., he's apt to walk out on you flat. Temperamental, I suppose, but still a nice guy. I think Astra's still carrying a torch for him."

"So? That's a bit of Sollywood gossip that never got on the telecasts."

"Which reminds me: I haven't forgotten about your swizard girl. We're having dinner with her tonight, if we get through here in time."

"I wish you hadn't told me. I'll be thinking about that dinner instead of lovestonite. But what do you think Valentinez can tell us?"

"I don't know. I only know that it seemed to tie in somehow with this problem of his. And any lead that you can get—"

The copter dropped straight down onto the rolling dunes. It might have been a time machine that had carried them out of the reach of all signs of progress. Nothing but the ramshackle studio indicated the presence of man, and even that might have come bodily out of some far earlier century.

"Mig!" Uranov shouted. "Hi, Mig! Get out the glasses! Company!"

No answer came from the wind-worn wooden studio. Garrett and Uranov plowed up the hillock to the door and paused to empty sand from their shoes. Uranov beat a rhythmic tattoo on the weather-beaten door. There was still no answer.

Garrett pushed at the door, an old-fashioned hinged affair. It swung open. The only trace of progress inside the studio was the hundreds of microbooks and their projector. There were shelves upon shelves of the older paper books, too, and canvases and an easel and brushes and paint pots and rags and everything but Emigdio Valentinez.

He heard Uranov's puzzled voice from behind his shoulder. "We'd have heard about it if he'd come back to town. The man's news."

"He's probably out painting someplace. You're the one that knows him; you go scout around. I'll wait here in case you miss him and he comes back."

Uranov nodded. "I'll be glad to. I can see how Mig feels about this stretch of coast. You see nothing but sand and ocean and your soul begins to come back inside you. Maybe with a shack like this I could write the—" He shook himself and said, "See you later."

Garrett was glad to be rid of a witness. Even the cynical Uranov might not appreciate the ethics of W. B. I. work. To find what has to be found, that is the important thing. The moral problem involved in a guest's right to search his host's belongings is secondary. Supposing Valentinez, when he did appear, declined to talk of lovestonite? Best to forestall that by learning what one could to start with.

It was a distracting search. Valentinez's library was a great temptation, and his own canvases were an absolute barrier to serious detective work. In no gallery had Garrett ever seen a Valentinez exhibit like this, and everything from the hastiest sketches to a magnificent and carefully finished sandscape bore the complete authority of the master.

Two things especially Garrett could gladly have spent long hours contemplating. One was a very rough crayon sketch for a self-portrait; there was no mistaking the gentle melancholy of that smiling face. The other was a half-finished composition of sun and sea and rock and algae, which even in its imperfect state seemed to sum up all the beauty of a world without man's refinements—and yet a beauty that existed only because a great man could understand and perfect it.

But Garrett resolutely tore his eyes from these two fragmentary masterpieces and went on with his search. He had covered the whole studio when he realized what was wrong—terribly wrong. There was not the slightest hint of anything concerned with lovestonite.

His own swizard was the only bit of lovestonite in the room. The random notes and scribbled jottings filed haphazardly among canvases and furniture dealt with formulas for paint, possible new developments in epic sets, an essay on the problems of peace, the possibilities of revival of old-style cookery, the latest discoveries in radioactivity, revisions in the orbit calculations of the

doomed Martian spaceships—everything under and around the sun—for Valentinez had the da Vinci type of creative mind—save lovestonite. Even the all-embracing library seemed to contain no books on the newer plastics, the clays of Australia, or the varying transmission speeds of light.

Yet Valentinez was said to have been working on lovestonite. And working where? There were no laboratory facilities here.

Then Garrett looked out of the rear window and noticed the blackening of the sand there. It had all been carefully raked over, but some large structure had been burned to the ground. A laboratory? A laboratory where Emigdio Valentinez had discovered—what?

His mind whirling with a half-resolved hypothesis, Garrett returned to contemplation of his two favorites among the pictures. That self-portrait was extraordinary. Partly in that it did not portray the artist as artist, no brush and palette to label it, partly in that it seemed so much freer, more unconstrained than a self-portrait generally managed to be.

He picked it up. On the reverse was marked in red crayon capitals LVSTITE.

Garrett clicked his tongue against his teeth. He went over to a pile of other sketches and found what he thought he'd remembered seeing—another self-portrait. Good—could a Valentinez help being good?—but far inferior—conventional in pose and somewhat stilted in treatment. He turned it over. In its reverse was crayoned MIRROR.

He sat down. With one flash, the whole business clicked into place. Everything fitted—for a start at least. Valentinez had come here to work on a problem and had thought to solve it with lovestonite. The speed of light in lovestonite is variable; Dr. Wojcek hoped eventually to reduce it almost to zero at will.

Suppose the problem was that of self-portraiture. Artists have previously worked with mirror arrangements. That has disadvantages. One, you have to paint yourself working; you model and paint the model at once. Two, either you see a mirror-image of yourself, which is not as others see you; or you use a complex arrangement of mirrors which gives you a direct as-seen-by-others image, but confuses your movements terribly. When you move your right hand, say, and your mirror image moves, not its left, but its own right, you grow so confused that it affects your muscular co-ordination.

But suppose you can at will vary the speed of light through lovestonite. You reduce that speed almost to zero. You stand in front of the lovestonite. Your image enters it, but is not visible yet on the other side; will not be visible for some indefinite length of time. Then reverse the slab of lovestonite. Control it with an electromagnet. Let that light which is your image, come through to you under your control—

A brilliant solution of a technical problem of painting. Fully worthy of the great Valentinez. But it did not explain the sudden increase in lovestonite manufacture. It did not explain why Valentinez's laboratory had been burned down and all trace of his researches destroyed. It did not explain why some one wished to wipe out Gan Garrett, nor why Uranov was so long finding the painter. Garrett began to feel a terrible conviction that no one would ever find Emigdio Valentinez alive. He began to fear the report that Uranov would bring back.

The door creaked open on its metal hinges. Garrett looked up reluctantly. "You didn't find him," he started to say, but the words stopped short. For the man in the doorway was not Uranov, but that notable jackal Stag Hartle.

A faint rising hum told of the departure of Uranov's copter.

"Nice of you to bring yourself down here," said Stag Hartle. In his hand was what looked like a prop pistol. "It's

been kind of difficult getting at you in Sollywood. It's quiet and uninterrupted here since your friend cleared out."

"Friend," Garrett repeated bitterly. It hurt. In the past twenty-four hours he had come to like the multiracial epic writer.

"He has good sense," said Hartle. "I gave him a hint of what we'd planned for you and wondered did he want to be included in. He was a bright boy; he decided no."

Garrett let his hand rest in his pocket. The popgun which the girl had so derided, was reassuringly capable of putting this jackal instantly out of action. But there were things to find out first. "So you're going to kill me, just as you killed Emigdio Valentinez?"

"Not just the same. No. We've got our own plans for you."

"Then you admit killing the greatest painter of our day?"

"Why not?" Hartle asked casually. "You're not telling anybody." Then he added more loudly, "Come on in, boys."

Garrett's cheek smarted; the effect of the ointment was wearing off. As his night-acquired sunburn tingled, he glanced at Hartle's prop pistol. More of the picture began to shape up as clearly as though beams were focusing on a Cassellite screen in front of him. "Valentinez had perfected the control of lovestonite," he said slowly. "He was fool enough to show his device to you."

A half dozen men filed into the room. They were a crummy lot—the scrapings of the dives in Luna City, or those outcasts that gravitate to extra work in Sollywood as they used to drift into the Foreign Legion. They all held pistols.

Garrett lounged back, both hands comfortably in his pockets. His left encountered the knife which had missed him on his entrance to Metropolis Pictures. Yes, there was even that left if everything else failed him, though if he could bring himself to use it— "Valentinez thought," he went on calmly, "that he had simply invented a device for self-portraiture. You realized that what he had actually created was a gadget for storing sunlight and releasing it at will in any desired strength. You—or someone behind you—began the processing of vast amounts of lovestonite. Metal and explosives are unobtainable for weapons; but the mirrors that you have manufactured, when the right electromagnetic hookup is attached to them, will arm a host that can set a city ablaze and blind its every defender. There are tiny lovestonite 'mirrors' in those pistols. They've been exposed to sunlight; the trigger releases that stored energy."

"Smart, ain't he, boys?" Stag Hartle demanded. "Figured that out all by himself, too."

Garrett's hand was firm on his popgun. Uranov's copter was gone, but there must be another outside that had brought this crew. If he could keep talking, build to a moment of distraction— "But why?" he wondered aloud. "You've found a new weapon that can be manufactured without overt violation of the law. But why? The quantities you've been turning out—what mob are you arming, and for what purpose?"

"For a purpose that good little boys from the W. B. I. shouldn't ought to understand. Because you're the backbone of this cockeyed peace that's sapping the guts of the world. Hell, there ain't no fun in life now. But there will be, brother. Christmas on wheels, but there will be!"

A luxurious gloat spread over Hartle's narrow face. His self-satisfaction provided the one necessary instant of diversion. For the first time, his lovestonite pistol was not pointed in Garrett's face.

No frontiersman in an historical epic of the Old West was quicker on the draw than a good W. B. I. man. The anæsthetic gun was in Gan Garrett's hand now, and trained neatly on Hartle. "You realize," said Garrett with dry factuality, "that the comatin crystals would penetrate before you could raise your weapon. I've learned as much as I need at the moment, and thank you,

Hartle. Now I'm leaving—and I wouldn't try to stop me."

His mind was clear and cool. He could even reflect that that last sentence of his was itself something of an Irish bull. He deliberately turned his back on Hartle; he was reasonably sure that a lovestonite blast would have little effect through thicknesses of clothing, and he felt that Hartle's mysterious "plans" for him did not include anything so direct as another dagger.

His trained muscles carried him with rapid deftness. He was past the crew while they still goggled at their leader's discomfiture. One remained. In the doorway stood a huge bulk of man with a flowing blond beard. Gan Garrett squeezed his trigger. The pellet made a little plop as it penetrated clothing and skin. Blond Beard opened his mouth, half moved his own pistol hand, and then crumpled.

Seconds made the difference here, and the huge bulk of Blond Beard caused the seconds' delay. His body, even unconscious, still blocked the doorway, and Garrett had to pause, to gather himself for a leap. In that momentary pause, he felt a sharp burning pang in his right hand. He did not quite drop his popgun, but his hand sank. Wiry fingers clutched his wrist and forced it down still farther.

He twisted to glimpse his antagonist. It was a squat and extremely hairy oriental—probably an Ainu—whose sinewy arms were devoting their utmost effort to turning him to face Hartle.

Garrett's uninjured left hand drew out the knife. He still did not know within himself whether he could use it. But to free himself now, when so much, the very structure of the peace itself might depend on his use of what he had learned here—

He heard Hartle's sardonic laugh. "So the W. B. I. boys don't mind a little killing so long as they're the guys that do it. Garrett, you don't know how much easier you're making our job."

Garrett's body twisted with the Ainu's like one sculptural mass. The muscles of his left arm tightened. Then a sudden jerk brought him face to face with Hartle. He saw the flicker of pleasure on the man's face and the slight movement of his pistol hand.

The world exploded around him. The sight of his eyes flared up to searing incandescence and then went out. He was in blackness filled with red and green glints of chaotic vividness. The skin of his face ached with burning pain. His mind whirled, and he felt himself spinning into limitless space.

He could see again when he regained consciousness. It must have been a conservative release of sunpower; a lovestonite pistol could, he was sure, induce permanent blindness, and possibly much more. He was surprised that Stag Hartle had showed him such mercy. He was, in fact, surprised to find himself alive at all. But he was most surprised to find himself where he was.

He had seen these clean, sunny, and terrible empty white cells often enough before. A W. B. I. man makes arrests and often finds it necessary later to visit his prisoners. But he does not expect to find himself in prison.

The doctor said, "Conscious now? Good. Feeling better? No, don't touch your face. That's a nasty burn, but it'll heal up. In time for your one-way trip."

Gan Garrett gasped. For a minute he thought the red-and-green-speckled blackness was coming back. "One-way trip—" he fumbled out. "What—" But the doctor had already left.

Garrett knew the layout of these cells. He found his way to the tablet dispenser and swallowed a mouthful of condensed food. Damn these dispensers! No need now for a guard to bring meals. A guard could be questioned. But instead he must sit here wondering—

Had he indeed stabbed that Ainu? In some sort of muscular spasm after unconsciousness? If so— He straightened his shoulders and took a deep breath. The laws were good. Man must

not kill man. If he had done so, no matter under what circumstances, then a one-way trip was his only possible reward. But if he had been somehow framed by Stag Hartle— Could that have been what the jackal had meant by "what we'd planned for you"—

There was the buzz which meant that the cell door was being dilated for an official visitor. The man who came in was very young, very alert, and very precise. He said, "Garrett?"

"I guess so. I'm not too sure of anything."

"Breckenridge. I've been appointed to defend you before the judicial council. I might as well warn you to start with that I have no hope whatsoever." He made the statement with efficient impartiality.

"That's cheery. But first of all—what are you defending me for?"

"Killing. It's a one-way trip for sure. But if you'll tell me your story—"

"First tell me the prosecution."

"Very simple. And I may add, convincing. One Stag Hartle—not too good a witness, I know, but plentifully corroborated—was worried about the continued silence of the painter Emigdio Valentinez and took a searching party down to his beach studio. They did not find Valentinez, but they did find an unidentified Ainu lying dead on the sand, stabbed through the back. You lay beside him; apparently you had fainted from the shock of killing and lain on the beach long enough to acquire a startlingly severe sunburn. The prosecution's theory is that you disposed of Valentinez, perhaps into the ocean, and that this unknown was his bodyguard, or perhaps a mere tramp who saw you and so had to be finished off."

"Nuts," said Gan Garrett. "If that's all they've got—"

"The Ainu's blood was all over you—spurted out of his back when he was stabbed. Position of stains indicate your left arm did the stabbing. Besides, there are your prints all over the knife handle. Why on earth couldn't you have had the sense to use paraderm?" the defense lawyer moaned sadly.

The trial took fifteen minutes. In the two days before it, Gan Garrett had worked harder than ever before in his life. He had managed to get an interview with the police chief himself, and spent an hour trying desperately to poke holes in the prosecution's case, with no success whatsoever. In all his career, the chief had never had a murderer before; he was loath to relinquish this one. And if a man can't convince his own attorney of his innocence—

Through his lawyer he sent desperate but restrained appeals to Hesketh Uranov and to Sacheverell Breakstone. He had no answer at all from the writer, which confirmed him in his growing belief that Uranov was a traitor rather than a weakling and had deliberately lured him down to the lonely beach studio. S. B. spent a half-hour with him, told him three new fictional subplots to the Devarupa epic—just groping with words, you understand—wondered if he could recommend another historical technician, regretted that he himself couldn't attend the trial because he'd be on the moon by then, and heard not a word of Garrett's defense or his accusations against Hartle.

Garrett knew that there was no hope in appealing to the secretary who had sent him on this job or to the W. B. I. itself. The standing rule was "Get yourself out." At last a sort of stoic resignment settled on him. He spent the last twelve hours before the trial preparing a minute precis of everything he had learned about lovestonite, Valentinez, and Stag Hartle. His lawyer promised to see that it was forwarded to the Secretary of Allocation.

His trial began at 14:15, on a fine sunny California afternoon. At 14:30 it was over. At 15:45 he was looking at the one-man rocket through a hazy mist of the beginning effects of dormitol. By 16:00 the lid was down, the pressure screws turned, and Gan Gar-

rett was ready to set out on the one-way trip.

Somewhere in Sollywood Stag Hartle was probably celebrating.

III.

The one-way trip is a form of punishment—or penalty is perhaps the better word—unique in the world's history. But it evolved logically and inevitably from the fact of a world at peace, even as that world itself had paradoxically evolved as a direct consequence of the War of the Twentieth Century.

At any time in the world's history before the year 2000, the voice of Devarupa would have gone unheard—unheard, that is, even as the voice of Christ went unheard by a nominally Christian world devoted to greed and murder. Only after the total destruction wrought by that world-wide and century-long war could man have listened seriously to the true message of peace.

The world had first heard of Devarupa when India was being overrun from both sides during the last vicious years of the German-Japanese War. The official Domei and DNB dispatches slurred over or perverted his acts; but the legend seeped through somehow and spread over the world, the legend of that one province which had finally succeeded in practicing in its perfection the traditional doctrine of nonresistance, so successfully that each horde of invaders in turn at last drew back with almost supernatural awe.

But that was a minute island of success. Not until after the Revolt of the Americas, when a united North and South America arose in glorious daring to cast off and destroy their masters—already weakened by their own Kilkenny-cattery—did the teachings of Devarupa begin to spread.

Who or what he was, it is impossible now to say. He was the second coming of Christ; he was a latter-day John the Baptist; he was a prophet of Allah; he was the Messiah; he was an avatar of Vishnu; he was an old god returned; he was a new god born; he was all the gods; he was no god.

All these things have been said, and all are still believed. For every religion accepted Devarupa, as god or as prophet; and Devarupa rejected none of them. To many of the irreligious he became a new religion; to others he represented only the deepest greatness of mankind, and as such was even more holy.

What religion he himself professed cannot now be historically determined; each church has certain proof that he belonged to it. But all churches, and all those without the churches, agree on the doctrines that he taught.

There was nothing novel about these. Christ or Buddha or Kung-fu-tse had said them all. But Devarupa was aided by the time in which he spoke; and by

NEW SUCCESS OVER ATHLETE'S FOOT

NEW SCIENTIFIC 2-WAY TREATMENT WITH **QUINSANA** POWDER -ON FEET AND IN SHOES – IS PRODUCING AMAZING RESULTS. IN TESTS ON THOUSANDS OF PERSONS, PRACTICALLY ALL CASES OF ATHLETE'S FOOT CLEARED UP IN A SHORT TIME.

AST—7X

the fact that his own mixed heritage enabled him to fuse, as none other had ever done, the practical vigor and solemnity of western religion with the sublime mysticism of the orient.

The weary world at last truly and sincerely wanted peace. The teachings of Devarupa showed it the way. And from this fortunate meeting of the time and the man came the world state, the world peace, and, inevitably, the one-way trip.

For if man may not kill man—and no Devarupian teaching is more basic than this—surely the State may not do so. And yet man is but slowly perfectable; even a weary and repentant world contains its individual fiends. There must be some extreme penalty for the most extreme offenses.

Life imprisonment, even when it came to be enforced literally, proved unavailing. The prisoner's mind inevitably grows to the shape of one purpose: to destroy his bars. Segregation, in something like a humane and idealized version of the old system of penal colonies without their imperialist element, seemed promising for a while. The independent state of segregates on Madagascar was apparently a complete success until that black year of '73 and the invasion of the African mainland.

Again the coincidence of time was fortunate, for the first rocket reached the Moon in '74, and in '75 Bright-Varney conceived the one-way trip.

The State may not kill, but it must dispose of certain individuals. Then ship them off into space. Put them in one-man nondirigible rockets, with a supply of condensed food and oxygen corresponding to their calculated normal life span, and send them forth on indeterminate journeys.

Most of these rockets became satellites of the Earth. Some chanced to enter the orbit of attraction of the Moon. And a few went off into the unknown reaches of space. Science-fiction writers were fond of the plot of a one-way tripper as the first man to set foot on an alien planet.

For, despite the discovery of the spaceship, the Solar System remained unexplored. Only the Moon and Mars had been reached, and only the Moon had been developed. For the exploratory voyages to Mars had themselves been one-way trips of the most fatal sort.

There had been five of these voyages, and thirty fine men had been lost on them in vain. The ships had landed; that much was almost certain from astronomical calculation and observation. But there had been no return. The ships could not carry enough fuel for a two-way trip; and a small crew could not maintain itself long enough on the planet to accumulate fuel from the known resources there present. Until ships could be built with greater fuel capacity, or enough men jolted themselves from their lethargy of peace, the farther reaches of space would be known only to those who never returned.

The possibility that a deliberately one-way rocket might find a strange landing place had been considered by the planners. As a result, the nose was equipped with repulsion jets which would function automatically upon sufficiently close contact with a larger body to effect a safe landing, and the equipment of the rockets included a pressure-regulating breathing suit and indestructible materials with which to leave a record for future explorers.

There were even microbooks in the rocket, with a small pocket-model viewer; there was hardly space for a projector. Every comfort of life, in fact, except companionship—which meant, to a man of a world believing so firmly and truly in the brotherhood of man, except life itself.

A nineteenth century poet, still read not only by scholars, wrote of "the Nightmare Life-in-Death. . . . Who thicks man's blood with cold." And it was this Life-in-Death who had replaced Death as the State's reward to malefactors.

Gan Garrett woke feeling as refreshed, after the dormitol, as a ten-year-old on a summer morning when school was over. He started to spring carefree to his feet, ready to begin a vigorous day, and only when his movements floated him about free of gravity did he realize his situation.

This brought gravity enough to his thoughts, if not to his body. The days before the trial had gone by too fast for him to attain any true perception of what was happening. And there had always been the hope that something—

But there was no hope now. Nothing at all forever any more. Nothing but coursing through space in this rocket until the carefully calculated end of his allotted days, a Vanderdecken of the spaceways.

There would be others out here, too, others sealed in their rocketlets, cut off forever from communication with each other, going their several courses, yes, even when the inhabitant lay—or rather floated—dead and the rocket moved on forever in whatever path the chance combination for forces had decreed for it. Space zombies, moving bodies with the souls dead within them.

These were not cheery thoughts for waking. He breakfasted off the proper average ration of concentrates, and washed them down—to his great surprise and pleasure—with a swig of first-rate brandy, which he was sure was not standard one-way equipment.

He wondered how long it had been since the take-off. Time obviously had no direct meaning for him any longer, but still he wondered. He did not know what the standard dose of dormitol for the occasion was; he might have been asleep anywhere from an hour to a week. He tried to judge by his unshaven cheeks; but his beard was so light and slow-growing that he could conclude nothing. Nor did he know the rate of the rocket. Had he already settled into a circumterrestrial orbit? Or was he one of the few who had excitingly escaped the Earth's grasp and shot onward into the unknown? Might he—

That was the one hope. The one notion to cling to, to make life valuable. He treasured it, but even a prospect as enthralling as that of being the Columbus of an alien planet must fight a losing battle against pure ennui.

His chronometer had run down during his sleep. (He might have deduced something from that, but he could not remember, in the recent confusion, when he had last wound it.) He did not bother to rewind it. What were hours and minutes in this temporal vacuum?

He ate when he was hungry, wondering if his stomach obeyed the calculated averages. Supposing he should overeat and be doomed to the death of starvation? But he ate by instinct nonetheless. He read occasionally, he maddened himself with the small stock of cards and puzzles, he slept when he wanted to—which was a great deal of the time. He constructed fantasies of how he would conquer the alien planet single-handed.

Finally, hours or days or weeks after he first awoke, he went back to the brandy bottle which he had hardly touched since that breakfast. He finished it almost at a gulp and threw a magnificent party in which he entertained in his narrow quarters all the most enjoyable people he had ever known and finally retired to the floating couch, where he made some momentously significant discoveries as to the erotic importance of gravity.

Then the repulsion jets automatically blasted and the rocket braked to a safe landing on the alien planet. He donned his breathing suit and tenderly holding the hand of the swizard girl, he opened the lock and led her forth to be the queen of his alien empire.

The strong, pure oxygen of the suit, headier than the aërous mixture circulated in the rocket, sobered him. The swizard girl vanished, and so did his delusions of conquering magnificence. But drunk or sober, he was indisputably stepping forth from the one-way rocket onto the barren soil of an alien world.

It is reported by one of the older poets that stout Cortez—by whom he doubtless means stout Balboa—with eagle eyes stared at the Pacific, and all his men looked at each other with a wild surmise. This is a somewhat more plausible account of the discovery of a new world than that of a composer of much the same period, who represents Vasco da Gama, upon his discovery of India, as bursting into a meltingly noble tenor aria.

Words do not come, let alone song, even if your breathing suit permitted you to utter them. "A wild surmise" is the exactly right phrase for the magnificent bewilderment that seizes you.

Not quite consciously, Gan Garrett checked the readings of the various gauges on his arm. Gravity low, temperature very low, atmosphere nonexistent. He scanned the pitted desert on which he had landed, noted the curious, sharp outlines of the jagged rocks, the complete absence of erosion on an airless world. The bright cold light turned the desert scene into one of those vividly unreal landscapes which the closed eyes sometimes present to the half-sleeping mind, or into a painting by that eccentric twentieth century master Salvador Dali.

The light—Gan Garrett tilted back his head, and the moon shone so brightly into his visioplate as almost to blind him. It was an enormous, titanic moon, of curiously familiar outlines, and its light, he calculated roughly, was a good twenty times as brilliant as earthly moonlight. He turned to the filing cabinet of his memory and tried to recall a planet that possessed a moon like that. Certainly none in the Solar System. And, therefore—

The thermocells of his suit did not prevent a chill from coursing along his spine. An extrasystemic planet— The men of Earth still wondered if they could accomplish translunar trips, if they could some day safely reach Mars. And he, the outcast, the one-way tripper—

He began the casting up of hasty plans, and wished that he had left just a little of that brandy. This sudden sobriety was uncomfortable.

He knew scientists who would tell him flatly that a planet without atmosphere is incapable of sustaining life, that he must be alone on this cold spinning desert world. But to say that life can only be the carbon-nitrogen-and-oxygen-sustained life which we know had always seemed to him anthropocentric stupidity. There might be intelligent life here which he could not even recognize as such—worse yet, which could not recognize him.

He would have to base himself on the rocket, and from there conduct carefully plotted tours of exploration until he could discover—what? At least he had many many Earth-years yet to do it in. Should he start now, or wait for the sun, which would reduce the wear on his thermocells? Now, at night, he could at least attempt to draw some conclusions as to his whereabouts from a study of the sky. He would need first of all to refresh his memory more accurately from a couple of microbooks. Then—

He was starting back for the lock of the rocket when he saw them. The suit was not wired for sound; he could not hear what must have been their heavily clumping approach. For they were in suits not basically dissimilar to his in principle, as best one could judge, though of fantastically cut design like nothing seen on Earth.

They, or their suits at least, were android. Bipeds with arms. They showed no signs of either hostility or friendliness. They simply advanced, and a detachment of two or three moved between him and the rocket.

His mind raced. Men—or things—in suits on an airless planet meant one of two things: survivors of an elder race, driven to an artificial underground or doomed existence by the deaëration of the planet and venturing forth thus protected on its surface; or explorers, rocket visitants like himself, but from what

strange world? Here in the alien void to meet yet other aliens—

He was outnumbered. And worse, he was unarmed, without even his W. B. I. weapon; and it was doubtful if the alien explorers adhered to anything like the code of Devarupa.

But they made no move to harm him. They simply encircled him. Their heavy awkward bodies moved with surprising agility—a clue that they, too, came from a world of heavier gravity. They flowed about him in utter silence, like an ameba engulfing a meal. Then they flowed off again, away from the rocket, and Gan Garret perforce flowed in their midst.

Garrett had once seen at the museum a showing of the silent flat pictures which were the seed from which epics were to grow. This procession was like that, save that the silent movement was smooth and unjerking, and as unreal as those relics of the past. It was like a continuation of his brandy dream, without its fine exaltation.

He flowed along lightly with the alien creatures, across the barren ground and

on into an equally barren but more civilized region. There were roads here, and domes. Survivors of the elder race, then, in all probability, rather than explorers. Somehow that made them more reassuring. Aliens upon the alien world, alienness squared, so to speak, would be too much.

The men under the dome wore no suits. He had thought "men" rather than "creatures" involuntarily. For they were exceedingly like men. Their costumes were strange, their hair was weirdly and—he guessed—symbolically arranged, and the tint of their skins ranged through half a dozen unearthly shades; but men they did seem to be. They talked to each other, and he wished he were adept at lip reading. The sounds looked not unlike earthly ones in formation.

Then he was led through a hall and into a small room, where only half a dozen of his captors followed. And there he decided that this was merely a continuation of the brandy dream after all.

For there, facing him, sat a woman identical in every feature with the girl who used to call them swizards.

She made a calmly efficient gesture and said something. His suited guards withdrew. Numbly, his mind aswirl, he snagged the ring of his right glove on the hook at his belt and jerked off the glove. Now with a hand capable of free manipulation he could undo his other vents.

This gesture had bared his identification bracelet, and the lovestonite plesiosaur dangling from it. His eyes had never left the woman, and now, even with his scanty ability at lip reading, he would swear that she exclaimed, "The swizard! It's you!" And he thought she added, "Well, I'll be damned."

When he had got his helmet off, the girl was extending to him what looked like an ordinary bottle of terrene brandy, such as he had had on the trip. "Here," she said in perfectly familiar speech. "Hesketh said you like this. That's why he had one smuggled into the rocket for you. He tried to smuggle in one of your popguns, but they're impossible to get hold of. Drink it up. And leave me a drop. But you— I can't get over it. If it wasn't for the swizard I'd think you had a double. The nice prim academician—"

"Look," said Gan Garrett. "This isn't real. It can't be." But the brandy undeniably was. "Will you tell me what goes on? And while you're at it you might please fix that screw at the back. I'm not used to these things."

"Sure," said the girl." Her hands were nimble. "Well," she said from behind his back, "Hesketh told us that a W. B. I. man was being framed into a one-way trip and there wasn't any legal hope of saving him. So we—"

"Wait a minute. Questions first. Where am I? Or before that—most important question—what's your name?"

She came back in front of him, and he shucked himself out of the suit. "Maureen Furness. I'm in charge of public relations at Metropolis—and other things." The skin crinkled around her blue eyes. "I'm glad it's important."

"Maureen . . . I like it. We can discuss the Furness part later. Now where am I?"

"On the Moon, of course. Didn't you recognize it?"

Garrett kicked himself. The relative gravity, the absence of atmosphere, the pitted desert— "But I've never been here before, and what with rockets and dormitol and the vanishing of all sense of time, I—"

Maureen laughed. It was a good, clear laugh. "So you thought you were an interplanetary discoverer? Fun. And what on Earth—or off it—did you think we were?"

"Things," he confessed.

"Swell. Maw Riin, the Wicked Queen of Alpha Centauri. I love that role."

"But the Moon," he began. "The

Moon doesn't have a satel— Oh—" he ended lamely, remembering the familiar shape of its outlines.

"Of course. When we're facing away from the Sun, the Earth looks like an enormous moon. Amazing effect, isn't it?"

"And how did I get here and what are you doing and— I never heard of a one-way trip ending on the Moon before."

"It never did. This wasn't any accident. But the engineer who fires off the one-way rockets is one of us. He aimed it here. We not only wanted to save you from the frame-up. We thought a trained W. B. I. man might come in very useful in the next few days on the Moon."

"You keep saying we. But just who are 'we'?"

Maureen's face grew grave. "We started out as a joke, and now it looks as though we may mean the salvation of Earth. We . . . well, I guess you'd call us a secret society. We don't have a name, and we don't have a ritual or fancy officers; but that's what we are. I don't know if Hesketh ever mentioned us or hinted at us?"

"No." But now Garrett understood Uranov's several cryptic allusions to "some people he knew," and the signals with which he had induced Dr. Wojcek to speak freely.

"It was Mig Valentinez who invented us, though he was usually too wrapped up with some artistic or scientific project to take much part. But he felt that the peace was going stale. That people were beginning to accept it as something to wallow in rather than something to keep fighting for. So he founded his crusaders, to keep fighting the little things, to keep alive against the small violations of Devarupa's thought, the petty inhumanities of man to man—maybe even do a little propaganda and built to where people could finally unit and fight in something like the Martian project.

"Then a little while after Mig went away to be a hermit, we stumbled on something big: the lovestonite business. Hesketh says that's where you come in, and you know a lot about it. Right?"

"I've gathered some. I know what the weapon is and how it works and what Stag Hartle is up to and why Valentinez was killed."

"You're sure he was?"

"Hartle admitted it."

"He was a good guy, that Mig—" Maureen said tenderly. "Well, anyway, you know enough for background now."

"Except what you're doing here. Oh, that's right. S. B. said something about coming up here with Astra Ardless and a shooting company."

"Yes." Maureen's voice was harsh. "And that didn't sound funny to you?"

"No. Should it have? Oh— What Uranov told me about locations—"

"Exactly. There are in California landscaped locations under dome for every possible type of setting, including lunar. So why should S. B. go to the expense of toting a vast number of extras and all his equipment up here to shoot the picture under less favorable conditions? Except for documentaries, nobody's made location trips in decades."

"Then you think—"

"We think this is what it's all been building up to. He's ready for his big coup. His first blow is going to be here on the Moon."

"Then Hartle's here?"

"Hartle, hell. S. B. Didn't you realize that Hartle was just a stooge? This whole lovestonite racket has been S. B. from the beginning."

Garrett took more brandy. "All right," he said. "S. B. is set to blow the top off of things, and we're going to stop him. Do I count as one of 'we' now?"

"You do," said Maureen.

"Then what's my first duty?"

"Look. This takes a little explaining. The boys that brought you in and the ones you saw outside are us. But there's a lot more extras here, and they're not here to function as extras.

What they are is S. B.'s mercenaries.

"You noticed the fantastic make-up? They're all supposed to be natives of Mars when the first spaceship arrived and nobody but a producer would think of shooting a Martian picture on a lunar landscape but the public'll never know the difference and that's hardly the point now, anyway. But in that getup there's no recognizing individuals, and we don't wear our bracelets most of the time. So a handful of us are going to slip into the dome where S. B. is staying—with Astra installed as empress-elect. We'll seem to be just the part of his army."

"And then—"

"We'll have a council of war tonight and get that straight. Hesketh and I are on the party and two others. Want to make it five?"

"What do you think?"

"Good. That's settled. Now come and meet us."

As she rose, Garrett gently thrust her back into the chair. "Just a minute. The Secretary of Allocation gave me this swizard to use in starting conversations about lovestonite. I'm not apt to find that necessary any more. You like swizards. Want it?"

"A Kubicek? You're giving me a Kubicek swizard? And do I want it?"

He detached the swizard from his identification bracelet and fastened it onto hers. As he leaned over her, her lips met him halfway. There was a little more than gratitude in the kiss.

Maureen eventually leaned back and ran a straightening hand through her rumbled black hair. "And, by the way," she said, "what's *your* name?"

Gan Garrett listened to his fellow extras:

"He's what we've needed all along—one strong man to tell us what's what."

"Sure. That's the hell of the State. There's a lot of guys running it and who are they and who cares?"

"And what are they running it for? Peace—nuts!"

"What's peace? Blood and steel, that's what we need."

"You don't draw blood with these pistols, though."

"But have you ever got to use one full strength? Watch a face shrivel up and burn under it and the eyes go dead?"

"And blood or not, they kill if you use them strong enough. And there's no power without killing."

"Power— That's ours now."

"Ours under him."

"Yeah, sure. Under him—"

Hesketh Uranov listened to his fellow extras:

"But my dear fellow, of course I welcomed this plan. I was simply so unutterably bored—"

"I know. If they want to maintain peace, they should never let us study the past. You read of all those thrilling events of history, and you begin to wonder. There's a strange sort of yearning goes through your muscles—"

"Of course the man's a fool. But if a fool chooses to provide us with weapons—"

"A world. A whole entire rounded world. The legions of Caesar never held anything like that. Even the Nazis never reached all the way into Asia. And we—"

"It's farewell to boredom now."

Maureen Furness listened to her fellow extras:

"—and the way it's changed the men! Why, everything's so different it doesn't feel like the same thing any more."

"A man really isn't a man unless he's killed somebody, I always say."

"But isn't that Ardless woman the lucky one, though? To be *his* woman—"

"When I think of my sister sitting at home with those three children and that wishywashy husband of hers, I could laugh right in her face."

"You know, a friend of mine was studying the old dialects and there used to be a word for just what we are. There used to be women like us, and you know

what they called them? Tramp followers."

They forgathered at the appointed meeting place—Garrett and Maureen and Uranov and the other one of "us," a dark intense young man named Loewe.

"It's astounding," the epic writer exclaimed. "There hasn't been anything like it since the Twentieth Century. And for a true analogy you've got to go back further than that—the European wars of the seventeenth, or even back to the Roman legions. This dome that's supposed to house a location company is an armed camp of mercenaries, ready to let loose rapine and destruction upon the world."

"They're mad," Maureen protested. "They can do infinite harm for a little while, but what can this handful hope to accomplish in the long run?"

It was Garrett who answered. "You know from the old medical records what syphilis could do to an uncontaminated population, with no resistance to it? This scourge can act the same way. How much they'll gain for themselves is doubtful, but they'll spread the poison of hatred and killing. The world has almost forgotten that; but the memory will come back quickly enough."

"And still you know—" Maureen sounded ashamed of her own statement. "These people— I know they're terrible. But somehow they've come alive. There's something in their eyes, even if the sight of it terrifies you—"

Uranov laughed. "Still dreaming of the vigor of the olden days, Maureen? Well, we've space enough for vigor now. We've got to learn what their plans are specifically and circumvent them—very specifically. And, first— But where's Wojcek? He ought to be here by now."

Loewe spoke. "I was with him. One of these . . . these killers had worked in the lab once. He recognized him in spite of the body tint and the wig. He got suspicious. They took him away. I don't think we'll see him again."

Garrett swore. Maureen gave a lit-

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tle stifled choking noise. Uranov said coldly, "That's a score to settle."

Garrett shook his head. "We can't talk of settling scores now. Private revenge—that belongs to *their* way of thought. We're working to frustrate this movement, and then comes our real job: to see to it that the peace never again breeds such a movement."

"But how?" Loewe protested. "Short of annihilating this entire camp. We're far too few to do that, and even if we could—"

"No. These men aren't lost to mankind. Remember they've grown up in a world conditioned to the ideals of Devarupa. They're revolting against those ideals now because they're under the dominatin of a strong leader who appeals to the worst in them; but that condition is still there, if we reawaken the ideals."

"But how?"

"One problem at a time. First to our current job: Did any of you find a way into S. B.'s quarters?"

Each answered in turn, but their answers amounted only to what Garrett had learned himself: that the sanctum sanctorum of the chief's high command was tightly, impenetrably guarded.

"And you didn't gather anything of what his first move is to be?"

"The men don't know, and they don't care. It's enough for them that a strong man is going to guide them to loot and slaughter and vivid excitement. "They'll take what comes when he gives the orders."

"It all boils down to that, doesn't it? One strong man. If we can get at him, if we can weaken him in any way—"

"Such," Uranov suggested, "as killing him."

"There are other weapons that will not so surely turn against us. Maureen, what did you find out about Astra's quarters?"

"They adjoin S. B.'s, of course. That's only practical. She has a dozen ladies in waiting or harem slaves or whatever you want to call them; it's easy enough for a woman to slip in there. I did myself, briefly. But the way through to S. B.'s is through her boudoir; you couldn't make it without—"

"—Without her help. Exactly. And that, my dear children, is what we are now going to obtain. Listen—"

"—And you never know what's going to happen to you next," said the woman who had learned she was a tramp follower. "Like last night, there I was walking along not bothering anybody unless, like Joe always tells me, I bother people just *by* walking along, only you can't believe a word Joe says, that Moon pilot, and all of a sudden this big husky man appears out of nowhere and—"

She let out a little scream. She had not expected her narrative to be so appositely illustrated. This time there were three men, one for each of her friends, too. She held her breath and reminded herself that it was about time for her to be vaccinated again and she certainly mustn't forget, or else—

When she let out her breath again it was in a sigh of anguish. "Of all the—To strip off your clothes and then . . . and then just take the clothes and vanish—" In dazed frustration, she clothed herself with the male garments which Gan Garrett had left behind.

The three female-clad figures followed Maureen unnoticed into Astra Ardless' apartment. Her ladies in waiting lolled about in provocative boredom, obviously longing for the coeducational life outside. Garrett looked at them, and began to understand why certain prerequisites were demanded of a male harem attendant. Maureen coolly walked on into the boudoir, and the three followed her.

Astra Ardless sat alone at her dressing table. Her face was in its natural state while she surveyed the array of cosmetics before her. Seen thus, it was a sad face, a lonely face, an old face, and in an odd way, a more beautiful face

than she had ever displayed on the beams.

Maureen approached her. "Madame wish a massage?"

She started slightly. "No. Who told you— Or did I order . . . I don't remember— But, anyway, I don't want one now. Go away. No, not that way. That's—"

Maureen turned back from S. B.'s door—it had been a ridiculously long chance, but worth trying—and left the room. Two of her attendants followed.

Astra Ardless turned back to the dressing table. She picked up a graceful bottle, contemplated it, and set it down again. She looked at her naked face and shrugged. Then in the mirror she saw the remaining attendant, and turned. "I told you to go," she said imperiously and yet wearily.

"I cannot go until I have talked with you," said Gan Garrett softly.

Astra Ardless snatched up a robe. "A man! I'll have you blinded for this—burned to death even. I'll—" Her tone softened; there was, after all, something not unflattering in the situation. "Who are you?"

He held out his wrist in silence.

"Gan Garrett—" she read on the bracelet. "Garrett— But . . . but you—" She drew back, half trembling.

"Yes," he said quietly. "I made a one-way trip."

"But . . . but nobody ever came back alive from a one-way trip."

"No."

"Then you're . . . you're dead? You're a— No. No! Oh, I know the research societies say there's some evidence of— But it couldn't be. There aren't ghosts! There aren't!"

"I am here."

She held the robe tight about her and sought to control her shuddering body. "Why? What do you want of me?"

"I have a message for you. A message from Emigdio Valentinez."

"Migdito! No— He's not— He's not what you are, is he? *Is he?*"

The shrill tension of her voice, the hand that reached out to clutch him and yet was afraid to, the quivering of her lips left no doubt that Uranov's bit of gossip had been right; and on that Garrett had built his whole campaign. Now he said, "Valentinez is dead. Stag Hartle killed him."

Her lips quivered no longer. They tightened cruelly. "Hartle killed—" Her hands made a little wrenching motion. It seemed to say, "That settles Hartle."

"Stag Hartle killed him—for Breakstone."

Her eyes went blank. "Breakstone? You mean Sacha? He had Migdito killed by that jackal?"

"Do the dead come back to tell lies? Valentinez invented the new use of lovestonite. Breakstone and Hartle needed it. Valentinez died. Breakstone has his lovestonite weapons."

Astra Ardless said nothing. But her face was no longer old and sad. It had a new vigor in it, and the bitterness of the tragedy that is beyond mere sadness. She rose and moved toward the door of the adjoining apartment.

"No," said Garrett gently. "You can do nothing alone. You need helpers. I have brought them." He moved to the door to the anteroom and raised his arm in the prearranged gesture. The other three returned.

The face of Astra Ardless was the mask of Electra. Even that of Alecto. "You will help me?" she said simply, almost childishly.

"We will help you."

Then even as they approached the door, it dilated. Four guards entered, each with a pistol. The first, in a pure spirit of fun, discharged the full force of the weapon into the face of the young man named Loewe, whose shrieks were already dying into permanent silence when Sacheverell Breakstone followed his guards.

"Tut," said S. B., looking down at the corpse. "Unnecessary. But harmless. And how nice of you, Astra, to collect

this little group of traitors for me. It's a shame that you'll have to share their fate, which will probably be long and unpleasantly ingenious. Of course, I'm just groping with words, you understand."

Gan Garrett's hand twitched helplessly at the popgun that wasn't there.

IV.

"You surely didn't think, did you," S. B. went on with leisurely calm, "that a man of my creative ability could have been so careless as to leave Astra's room unwired? In an enterprise so daring and significant as mine, one must take all possible precautions. I have had two operatives on shifts regularly listening to this room—save, of course, when I was in it myself. And you"—he turned to Garrett—"you certainly do not expect me to swallow, like Astra, your folderol about being a ghost? How you escaped from a one-way trip, I have no notion, though I intend to learn such a useful secret before I am through with you; but I have no doubt that you are solid and corporeal and alive—for the time being."

Garrett answered him with equal calm. "It was a pretty frame, S. B., but the picture stepped out of it. Very pretty, and quite worthy of you. But I didn't expect to find you at the head of this lovestonite racket."

S. B. smiled his satisfaction. "So? You find that you had underestimated my abilities?"

"Not under. Over. I thought you were too clever to make such a fool of yourself. It smelled more like, say, Hartle's work to me."

"Hartle!" S. B. snorted. "That mercenary! That jackal! A man of action, yes, even of a certain contemptible ingenuity. But what creative power does he have? Do you think for a minute that he could conceive and carry out such a colossal undertaking as this?"

Garrett smiled. "You're doomed, S. B. You're damned. What can you accomplish with this devilish violence? Kill off a few hundred people—say even a few thousand. And then the millions of mankind will swallow up your little terrorists as though they had never been."

A trace of anger contorted S. B.'s face, then faded into a laugh. "Poor idealistic idiot! My dear Astra, before I dispatch you and your fumbling confederates to appropriate destinations, I should like to borrow your boudoir for a lecture hall. Sit down. Sit down, all of you. And you boys, keep your trigger fingers steady. Now Garrett, Uranov, Miss Furness, you are to have the privilege of hearing the functioning of a great creative mind."

Garrett sat down comfortably enough. He did not need the added illogical reassurance of Maureen's handclasp. Get S. B. talking, induce him to reveal of his own accord all they needed to know, and keep him talking until the opportune break presented itself. That had been his hastily contrived strategy, and it seemed to be working. The man was a frustrated creator; Uranov had told him that, and it was the key to the whole set-up. And the mediocre, the self-insufficient creator can never resist an audience which must perforce admire him.

"All Sollywood," Sacheverell Breakstone began, "acknowledged my creative-executive supremacy. The Little Hitler, they called me. And I remember reading in a biography of that great man how he could have been a magnificent painter had he chosen to follow that line instead of creating in terms of meters and men. Even so, I could have been a great musician, but I instinctively turned away from the sterility of such purely artistic creation. I found my metier in Sollywood; but even there I was cramped, strangled by the limitations of peace. The man who would create with men needs weapons. The man who would create life must be able to mete out death.

"I had had my plans for lethalizing

the period weapons of Sollywood—filing the daggers, clearing the barrels, finding ammunition somehow through armsleggers— But it was a difficult project. You men of the W. B. I. and the powers of the Department of Allocation— I could have done it. I should have created the means of frustrating you. But then, Hartle came to me with the inspired discovery of Emigdio Valentinez."

"You—" Astra Ardless' voice was harsh and toneless, hardly recognizable as human. "You did kill him—"

"Not quite. Hartle had forestalled me there. Valentinez was already dead, though I should surely have ordered his death if he had not been. But why are you so concerned, my dear? You were willing to accept a share in an empire founded on a thousand other deaths, and yet you boggle at that one as though you were the idiot Devarupa himself."

Astra Ardless said nothing. She looked as though only her own death interested her now.

"This is indeed," Breakstone went on, "a brilliant little weapon, which I think I may claim the credit of inventing, with the basis of the few hints of Valentinez and Hartle. This particular model," he brandished the one in his hand, "contains a disk of lovestonite a centimeter and a half in diameter and a centimeter thick. It was charged in direct sunlight, using a fifteen centimeter burning glass focused on it. It contains approximately the solar energy of a full day.

"The trigger releases that energy for one twenty-fifth of a second. This slide here controls the time of passage. At this end of the scale, the energy released in that twenty-fifth of a second is only enough to daze and blind momentarily. At this end—" He concluded the sentence by indicating the scorched fare of the corpse of Loewe. "It is all weapons in one, from the gentle stunner to the conclusive killer. And by its power I shall create a new world."

He showed signs of pausing. Garrett spurred him on with a fresh laugh. "I'm

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still amazed at your stupidity, S. B. What can your few accomplish, even armed with that?"

"What could five serpents accomplish in a herd of five thousand rabbits? Especially if they had the certainty of winning many of those rabbits over to serpentry, and even of equipping them with fangs?"

"A nice metaphor. But, of course, you're only groping with words."

"I've gone beyond words now, Garrett. It's the deeds of Breakstone that will change the world."

"And they are—"

"Listen, you idiots. Understand how a man must act to create. Tomorrow we take over the Moon. That is simple. All the life, all the supplies and communications of the Moon center in Luna City. That we take over, and we need pay no further heed to the few isolated scientists and engineers and work crews that we cut off. Now we own a satellite. We take over the spaceport and the translunar experimental station. We control the spatial wireless and with forged messages lure most of Earth's spaceships here. We then control a space fleet.

"Then, at our leisure, we invade Earth. We have left enough men behind to be our helpful Quislings in this invasion. The W. B. I. can fight individual armsleggers, but it is not strong enough to combat my armed hundreds, who will soon be thousands. And there is no other physical force to resist us. Even those who are strong enough to resist will be sapped by their own idealistic beliefs. They will not dare to kill us until it is too late and they have themselves been killed.

"And then— You know that classic, 'The Count of Monte Cristo'? I produced an unimportant epic of it as one of my first creations. It reaches its high point when the hero says four words, which mean all of life to him, as they must to any man of creative genius. Four words that have never been true before in all history, but which will find their truth at last when I utter them:

"The world is mine!"

Garrett was moved to shudder at the blazing light of S. B.'s eyes, as vivid and as murderous as a lovestonite flash. But he forced himself to go on scoffing. "And you expect your hundreds and thousands to follow you loyally? Can a man like you inspire love and loyalty?"

"Love! Loyalty!. Say rather loot and laziness. They are offered the privilege of sacking the Earth, and their lazy souls are spared the necessity of ever thinking or acting for themselves."

"They'll never follow you. The risks are theirs and the glory is yours."

"You think not? Then come. Tonight I speak to them. For the first time I tell them a definite plan. I outline the assault upon Luna City. And you shall hear me speak, and you shall know for yourself if they will follow me. Boys," he said to the guards, "bring these carefully after me. They are to be honored guests at the foundation of the new world."

Outside, in the public square of this dome which Breakstone had filled with his army, the hordes were beginning to gather, the seething mass of these new Huns. Inside, in this upper room, S. B. waited patiently. As a producer-director, he had been noted for his sense of timing. Now with that same sense, he awaited the exact moment when he should go out on that balcony and address his followers.

The suppression of balconies, Gan Garrett reflected with bitter whimsicality, may be necessary in a world which wishes to prevent the rise of dictators.

A guard came in, saluted, and said "Hartle."

Sacheverell Breakstone returned the salute and nodded. "Show him in."

Stag Hartle came in, wearing an ascot which was unusually brilliant even for him—so blinding as almost to eliminate the need for lovestonite weapons. "Hi,

boss," he said casually. "Just wanted to—" His voice dropped as he spotted Garrett. "Christmas on wheels," he muttered. "Ain't it bad enough to see a ghost without him being in drag?"

"Mr. Garrett is no ghost," said S. B. "And the female garments are merely part of a plot of his against me—a plot which miscarried as grievously as your attempt to railroad him on a one-way trip. Clumsy work, Hartle."

Hartle bridled. "My part of it was O. K. I'm reliable. And that's what a lot of people are finding out now, boss."

"So? And what does that mean?"

"It means that when I tell 'em there's going to be loot and excitement, they believe me. When you talk big, S. B., they begin to wonder what's in it for them, or are they all just stooging for you?"

"So? Go on—"

"It means, S. B., that I've come here with a little proposition before you go out on that balcony, and there's a lot of the boys'll back me up." Hartle's confidence was growing even cockier. "It means it'd be a very wise idea to put me in command of this assault on Luna City. You can stick around with your big ideas, but leave the practical stuff to me."

"So? You wish to relegate me to a figurehead? Like the ruler of the old constitutional monarchies, while you—This is a—shall we say a revolt? You understand I—"

"Sure, you're just groping with words. Yeah, call it a revolt if you like. Words don't count. That's what you've got to learn."

"And if I refuse, as I assuredly will?"

"Then—"

It happened almost too quickly to follow. Hartle's hand reached toward his blouse, but before it had more than begun the movement there was a flash from the hand of S. B. Something that had been Stag Hartle lay blasted on the floor. The illegally sharpened knife clanked from his blouse; the sound of ringing metal was clean against the anguished echo of his dying screams.

Sacheverell Breakstone walked over and picked up the knife. "A singularly clumsy attempt at assassination," he observed. "The fool was hampered by his old habits. Conventionally, he had prepared his fingers for the knife with paraderm; that was enough to forewarn me. Now are you content, Astra? I have punished the murderer of Valentinez." He spurned the body with his foot. "Outside, boys," he said, and gestured to the balcony.

Two guards carried the corpse of Stag Hartle and tossed it over into the gathering throng. For a moment S. B. stood where he could be seen from below, the knife in one hand, the lovestonite pistol in the other. The visual object lesson was complete and succinct.

He turned back to the guests in the room. "You see, gentlemen and ladies, how simple and effective is the true exercise of power?"

Maureen Furness had sat through all this in tense and shuddering silence. Now at last she spoke. "I used to think that the old times were more alive, more exciting. That was before I ever saw a man die—"

Breakstone laughed. He seemed to swell physically to match his magniloquent dreams. His short stocky body in its comically anachronistic costume dominated the room. "Leave us," he said abruptly to his guards. Then as they hesitated incredulous, he roared: "Leave us. You heard me."

Hesitantly the men left.

The murmur of the gathering mob was loud from outside the balcony. "In a moment," said S. B., "I shall address my tools of creation. And in this guardless moment, you fools shall provide me with my final proof of power, my last touch of inspiration. I shall show you your own impotence and grow strong on it. There." He laid his lovestonite pistol and Stag Hartle's sharpened dagger on the floor. "I am here, unguarded. There are weapons. And I am safe because you—"

Astra Ardless sprang forward and seized the pistol. With one almost careless blow, Breakstone knocked her aside. There was a flash as she fell, and she cried out in pain. S. B. glanced down at her incuriously. "I had forgotten her; she does not share your idealism. Only her dead lover moves her. But she has now had the courtesy to take care of herself.

Gan Garrett felt his muscles straining against his will. He could attack S. B. weaponless. He could beat him to a pulp; but to what avail? He could simply summon his guards back and— Destruction was the necessity. But can a man, conditioned from childhood to certain beliefs, beliefs moreover which he knows deep in his heart to be the lasting truth of mankind, can he sacrifice those beliefs even when they themselves seem to demand it?

His helplessness seemed to justify Breakstone's taunts. And yet would his action not justify Breakstone even more profoundly? And then abruptly he realized how futile even destruction would be. He needed something more, something—

"—and enterprises of great pith and moment," Uranov was muttering, "with this regard their currents turn awry, and lose the name of action—"

"Your moment is over," S. B. announced. "You have proved your spiritual castration, and from your impotence I have drawn fresh potency. Now I shall speak to my multitude, and within the hour we shall have begun our march upon Luna City. Our two-meter lovestonite disks—you did not know we had progressed to weapons of such size and power?—shall attack and melt down the dome of the city, turning the lunar night into the fatal glare of our new day, while—"

Both men seemed to move at once, so rapidly that Maureen Furness saw for a moment only a confused blur of movement. Hesketh Uranov had leaped for the knife, snatching it from the floor and driving it toward Breakstone's heart. But at the same instant, Gan Garrett sprang between. His right hand caught Uranov's, wrenched at the wrist, and forced the dagger down. His left connected squarely with the point of Breakstone's jaw.

Garrett stood looking down at the sprawled body of the producer-director-fuehrer. "Failing my popgun," he said, "my left is the best instantaneous anæsthetic I know."

Uranov rubbed his aching wrist and grunted. "What good is that? Let me kill him. I know the consequences. I know your W. B. I. oath and I know you'll take me in and have me sent on a one-way trip. But my life doesn't count, and his death does."

"Uh-huh. So we kill Breakstone, and where are we? We've still got his henchmen to reckon with, his gauleiters. The late Mr. Hartle can't have been the only one. And there's still that mob outside, hungry for anything that isn't peace. No, Breakstone knew what he was doing when he made his big gesture."

"It was the gesture of a megalomaniac fool. They all go too far and end by destroying themselves. This gesture was Breakstone's invasion of Russia."

"It's going to turn out that way, but he didn't see that far. It made sense to him—a psychological trick to bolster his own morale, and no danger attached. He knew we were sensible enough to see that his death couldn't possibly do any good." Garrett crossed to the unconscious Astra Ardless and picked up the pistol that had marred her vanishing beauty. "It seems like years I've been on the track of this lovestonite weapon, and this is the first time I've held one in my hand. Neat little gadget, isn't it?"

"But what are we going to do?" Maureen protested. "You say S. B.'s death couldn't do us any good. Then what do we gain by just knocking him out?"

"Listen. You heard him mention two-meter lovestonite weapons for attacking cities. I didn't know they were work-

ing on such a scale. I wonder . . . yes, they could be terrific. Use a huge aluminum-foil mirror for charging them . . . yes. All right. Remember what he said about turning the night into a new day? Remember what the men out there are rebelling against and what they want?"

The door dilated, and one of Breakstone's guards stepped in. He found himself looking straight into Garrett's lovestonite pistol.

"Come on in." Garrett urged politely. "Right this way. Take his pistol, Uranov, and keep him covered."

The man's eyes went to S. B.'s body, then to Garrett's face. His mouth half-opened, but his eyes shifted to Garrett's hand and he was silent.

"Good boy," Garrett commended him. "I've got a little job for you."

The man kept his eyes on the pistol and nodded. He had seen it work on Stag Hartle.

"And the first thing, if the lady will please turn away her eyes, is for you to strip."

Gan Garrett stood on the balcony, in the uniform of Breakstone's personal guard. His stolen female garments would not have become him in this crucial moment. Oratory, he felt, did not become him, either. But oratory was a necessary weapon of demagogy, and was demagogy at times perhaps a necessary weapon to bring him to his own higher aims?

The mob, long awaiting its leader, muttered restlessly. Garrett found the switch of the speaker, turned it, and began the most important words he was ever to say.

"Listen, men. You are gathered to hear your orders from your leader."

There was a roar of impatient agreement.

"Very well. I bring you your orders from your leader. But not from Breakstone. Breakstone is through."

There was a furious outcry of protest. The flash of a lovestonite pistol seared the wall just to Garrett's right. He stepped up the speaker to dominate the crowd noise and spoke urgently: "Listen: Would I be here speaking to Breakstone's men from Breakstone's balcony if he hadn't been bested? And do you want a leader who can be bested? Then listen to me. Hear the new words, the new orders, the new war."

The murmur of the mob died down slowly, reluctantly. He could catch the dim echo of phrases: "—might as well—" "—got to find out what goes—" "—so what the hell; let's hear what he—"

"Breakstone," he repeated, "is through. He was a great leader, but a blind and foolish one. I offer you a greater. He planned to lead you on a great war, but a cruel and pointless one. I offer you a greater."

There began to be mutterings of welcome, almost approbation from the crowd.

Garrett found his mind unwontedly praying, praying that this idea would work and that he might be worthy to carry it out. "You came with Breakstone," he went on, "because you were not happy alone and in peace. Man demands more than that. He does not want to be his lonely self; he yearns for a great man, a great leader in whom he can put his trust. He does not want peace; he wants life and action and the great crusade of war."

There was a handful of scattered cheers from below.

"Let me tell you about the crusade I bring you. See how it dwarfs Luna City. There were always wars in the old world because man needed his crusade. Because in wartime there came new life and new vigor. Because the weak piping times of peace were not worthy of man. And now, for these same reasons, Breakstone was leading you to war in this our new world. Peace was not worthy of man—nor was man worthy of peace. He made peace into something weary, stale, flat and unprofitable. While peace, true peace—

"We *fight* a war; but in peacetime we relax into stupid nothingness. We take what comes, we wallow in comfort, and we come alive only for the next war. We have not yet learned to *fight* a peace.

"Crusades do not die when the weapons of war crumble to silence. Every moment of the true life of man should be, must be a crusade. In Africa and in Australia there are black men who have not yet been brought to full membership in mankind; there is a crusade. In Europe and Asia and America, there are still injustices even under our economic dispensation; there is a crusade. Cancer is dead by now; but diabetes and tuberculosis and Kruger's disease still claim their thousands and their tens of thousands; there is a crusade."

He was losing the mob; he felt that. They talked among themselves in huddled groups. There were no more shouts of acclaim. He lowered his voice to a pitch of intense resolution and plunged on to the heart of his offer.

"But those crusades are for the stay-at-homes, the ones that haven't yet rebelled against this stagnant peace. You want more. You want fame and glory and wealth and excitement. You want a world to conquer. Well, it's yours for the fighting. I promise you a world. I promise you—Mars!"

He went on hastily, before they could react away from the novel idea. "Why have our trips to Mars failed? Because only a few brave men—warriors like yourselves—dared to make them. The ships cannot carry enough fuel to return, and much of what they carry must be wasted against the cold of the Martian night. A handful of men cannot do enough work to extract the fuel we know is there.

"You are brave, you are daring, and you are no mere handful. A fleet, an armada of spaceships can carry you to Mars. Lovestonite can ease the fuel problem, not in the ship itself, but against the Martian night. Your two-meter disks will turn that night into a new day. And there, in this new outpost of man, there you can fight. You can fight the cold and the hardships. You can fight God knows what dangers of nature lurking there. You will be the bravest, the most daring, the *fightin'est* of men.

"Man has not conquered Mars because he has been peace-loving and timorous and sheeplike. Men! *Are you these things?"*

There was a roar of *NO!* which must have drowned out the revelry in the night spots of Luna City if the airless moon could have carried sound outside the domes. Warmth flowed into Gan Garrett. The guess was working. He hastened on:

"I promised you a greater war. I also promised you a greater leader. You need him. You need the greater leader that bested Breakstone, because only he can make this new crusade real."

He saw their eyes raised to him, and he moved his hand in a gesture of disclaimer. "No. I am not that leader. But I speak for him now. There is a great man for you to follow. Greater than Caesar and Napoleon and Hitler, and immeasurably greater than Breakstone. Greater even than the infinitely different greatness of Devarupa. Follow him. Let him lead you to triumph in the new crusade."

He waited until there arose clamorous outcries for the new leader. Then he let his voice drop until the tuned-down speaker barely carried it, small and still over the hushed crowd.

"That man is Man. He alone is the all-great leader. No single man, no world-conqueror, no saint, no genius of art or science, is important beside Man himself. And Man is all of you—and each of you. Look within that part of Man that is yourself, and find there that part of yourself that is Man. There is your great man, your strong leader. Follow him, and fight the crusade of Mars. Mars was the god of war. Now he leads the new war of peace!"

The balcony seemed upheld by a surging wave of jubilant noise.

"They didn't get the last of it," Gan Garrett said to his friends as he stepped back into S. B.'s chamber. "For them I'm the great man on the white horse. I've destroyed a fuehrer to become one. But they'll learn, and meanwhile I've set them on the right road. We've a new world before us."

Sacheverell Breakstone writhed, and grunted through the gag that was part of Garrett's female costume.

Uranov gestured to him. "I just thought of another blessing. As a W. B. I. man, you're arresting him?"

"Of course. He'll get a one-way trip for Hartle."

Uranov grinned. "Good. Now I can write the Devarupa epic without any words that he's groped with."

The Devarupa epic, generally accepted by now as the finest solly ever made, was released on the same day that the space armada left for Mars. Its fate, critical or commercial, did not concern its author. You don't worry about epics on a space crew.

Garrett and Maureen said good-by to him at the spaceport. "That's why I'm not going," Garrett said. "If I led this magnificent exhibition, if I was even on it, I'd be fixed forever as a great new fuehrer. I'm damned if I take the chance. I'm sinking back into the anonymity of a good W. B. I. agent."

Uranov glanced at the loading of the two-meter disks. "See you soon though. And I'm the first man ever leaving for Mars who's said that with any confidence."

"Here," said Maureen Garrett abruptly. She took a lovestonite figure from her recently altered identification bracelet. "Take him. He's been pretty good luck for us by and large so far. I want him to make the first two-way trip."

The loading was being speeded up. The crew was impatient for a new world, and for the new war of peace.

THE END.

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Endowment Policy

by Lewis Padgett

The old gentleman really did want to give the young man driving the taxi a present. He wanted to give him the world, freely and without strings. With a reason, though—

Illustrated by Hall

When Denny Holt checked in at the telephone box, there was a call for him. Denny wasn't enthusiastic. On a rainy night like this, it was easy to pick up fares, and now he'd have to edge his cab uptown to Columbus Circle.

"Nuts," he said into the mouthpiece. "Why me? Send one of the other boys; the guy won't know the difference. I'm way down in the Village."

"He wants you, Holt. Asked for you by name and number. Probably a friend of yours. He'll be at the monument—black overcoat and a cane."

"Who is he?"

"How should I know? He didn't say. Now get going."

Holt disconsolately hung up and went back to his cab. Water trickled from the visor of his cap; rain streaked the windshield. Through the dimout he could see faintly lighted doorways and hear juke-box music. It was a good night to be indoors. Holt considered the advisability of dropping into the Cellar for a quick rye. Oh, well. He meshed the gears and headed up Christopher Street, feeling low.

Pedestrians were difficult to avoid these days; New Yorkers never paid any attention to traffic signals anyway, and the dimout made the streets dark, shadowy canyons. Holt drove uptown, ignoring cries of "Taxi." The street was wet and slippery. His tires weren't too good, either.

The damp cold seeped into Holt's bones. The rattling in the engine wasn't comforting. Some time soon the old bus would break down completely. After that—well, it was easy to get jobs, but Holt had an aversion to hard work. Defense factories—*hm-m-m-m.*

Brooding, he swung slowly around the traffic circle at Columbus, keeping an eye open for his fare. There he was—the only figure standing motionless in the rain. Other pedestrians were scuttling across the street in a hurry, dodging the trolleys and automobiles.

Holt pulled in and opened the door. The man came forward. He had a cane, but no umbrella, and water glistened on his dark overcoat. A shapeless slouch hat shielded his head, and keen dark eyes peered sharply at Holt.

The man was old—rather surprisingly old. His features were obscured by

wrinkles and folds of sagging, tallowy skin.

"Dennis Holt?" he asked harshly.

"That's me, buddy. Hop in and dry off."

The old man complied. Holt said, "Where to?"

"Eh? Go through the park."

"Up to Harlem?"

"Why—yes, yes."

Shrugging, Holt turned the taxicab into Central Park. A screwball. And nobody he'd ever seen before. In the rear mirror he stole a glance at his fare. The man was intently examining Holt's photograph and number on the card. Apparently satisfied, he leaned back and took a copy of the *Times* from his pocket.

"Want the light, mister?" Holt asked.

"The light? Yes, thank you." But he did not use it for long. A glance at the paper satisfied him, and the man settled back, switching off the panel lamp, and studying his wrist watch.

"What time is it?" he inquired.

"Seven, about."

"Seven. And this is January 10, 1943."

Holt didn't answer. His fare turned and peered out of the rear window. He kept doing that. After a time, he leaned forward and spoke to Holt again.

"Would you like to earn a thousand dollars?"

"Are you joking?"

"This is no joke," the man said, and Holt realized abruptly that his accent was odd—a soft slurring of consonants, as in Castilian Spanish. "I have the money—your current currency. There is some danger involved, so I will not be overpaying you."

Holt kept his eyes straight ahead. "Yeah?"

"I need a bodyguard, that is all. Some men are trying to abduct or even kill me."

"Count me out," Holt said. "I'll drive you to the police station. That's what you need, mister."

Something fell softly on the front seat. Looking down, Holt felt his back tighten. Driving with one hand, he picked up the bundle of banknotes and thumbed through them. A thousand bucks—one grand.

They smelled musty.

The old man said, "Believe me, Denny, it is your help I need. I can't tell you the story—you'd think me insane—but I'll pay you that amount for your services tonight."

"Including murder?" Holt hazarded. "Where do you get off calling me Denny? I never saw you before in my life."

"I have investigated you—I know a great deal about you. That's why I chose you for this task. And nothing illegal is involved. If you have reason to think differently, you are free to withdraw at any time, keeping the money."

Holt thought that over. It sounded fishy, but enticing. Anyhow, it gave him an out. And a thousand bucks—

"Well, spill it. What am I supposed to do?"

The old man said, "I am trying to evade certain enemies of mine. I need your help for that. You are young and strong."

"Somebody's trying to rub you out?"

"Rub me . . . oh. I don't think it will come to that. Murder is frowned upon, except as a last resort. But they have followed me here; I saw them. I believe I shook them off my trail. No cabs are following us—"

"Wrong," Holt said.

There was a silence. The old man looked out the rear window again.

Holt grinned crookedly. "If you're trying to duck, Central Park isn't the place. I can lose your friends in traffic easier. O. K., mister, I'm taking the job. But I got the privilege of stepping out if I don't like the smell."

"Very well, Denny."

Holt turned into an underpass. "You know me, but I don't know you. What's the angle, checking up on me? You a detective?"

"No. My name's Smith."

"Naturally."

"And you—Denny—are twenty years old, and unavailable for military duty in this war because of cardiac trouble."

Holt grunted. "What about it?"

"I do not want you to drop dead."

"I won't. My heart's O. K. for most things. The medical examiner just didn't think so."

Smith nodded. "I know that. Now Denny—"

"Well?"

"We must be sure we aren't followed."

Holt said slowly, "Suppose I stopped at F. B. I. headquarters? They don't like spies."

"As you like. I can prove to them I am not an enemy agent. My business has nothing to do with this war, Denny. I merely wish to prevent a crime. Unless I can stop it, a house will be burned tonight, and a valuable formula destroyed."

"That's a job for the fire department."

"You and I are the only ones who can perform this task. I can't tell you why. A thousand dollars, remember."

Holt was remembering. A thousand dollars meant a lot to him at the moment. He had never had that much money in his life. It meant a stake; capital on which to build. He hadn't had a real education. Till now, he'd figured he'd continue in a dull, plodding job forever. But with a stake—well, he had ideas. These were boom times. He could go in business for himself; that was the way to make dough. One grand. Yeah. It might mean a future.

He emerged at Seventy-second Street, into Central Park West, and from the corner of his eye saw another taxi swing toward him. It was trying to pocket his cab. Holt heard his passenger gasp and cry something. He jammed on the brakes, saw the other car go by, and swung the steering wheel hard, pushing his foot down on the accelerator. He made a half circle, fast, on West End, and was headed north.

"Take it easy," he said to Smith.

There had been four men in the other taxicab; he had got only a brief glimpse. They were clean-shaved and wore dark clothes. They might have been holding weapons; Holt couldn't be certain of that. They were swinging around, too, now, having difficulties with the traffic, but intent on pursuit.

At the first convenient street, Holt turned left, crossed Broadway, took the clover-leaf into the Henry Hudson Parkway, and, instead of heading south on the drive, made a complete circle and retraced his route as far as West End. He went south on West End, cutting into Eighth Avenue presently. There was more traffic now. The following cab wasn't visible.

"What now?" he asked Smith.

"I . . . I don't know. We must be sure we're not followed."

"O. K.," Holt said. "They'll be cruising around looking for us. We'd better get off the street. I'll show you." He turned into a parking garage, got a ticket, and hurried Smith out of the cab. "We kill time now, till it's safe to start again."

"Where—"

"What about a quiet bar? I could stand a drink. It's a lousy night."

Smith seemed to have put himself completely in Holt's hands. They turned into Forty-second Street, with its dimly-lit honky-tonks, burlesque shows, dark theater marquees, and penny arcades. Holt shouldered his way through the crowd, dragging Smith with him. They went through swinging doors into a gin mill, but it wasn't especially quiet. A juke box was going full blast in a corner.

An unoccupied booth near the back attracted Holt. Seated there, he signaled the waiter and demanded a rye. Smith, after hesitating, took the same.

"I know this place," Holt said. "There's a back door. If we're traced, we can go out fast."

Smith shivered.

"Forget it," Holt comforted. He exhibited a set of brass knuckles. "I carry these with me, just in case. So relax. Here's our liquor." He downed the rye at a gulp and asked for another. Since Smith made no attempt to pay, Holt did. He could afford it, with a thousand bucks in his pocket.

Now, shielding the bills with his body, he took them out for a closer examination. They looked all right. They weren't counterfeit; the serial numbers were O. K.; and they had the same odd musty smell Holt had noticed before.

"You must have been hoarding these," he hazarded.

Smith said absently, "They've been on exhibit for sixty years—" He caught himself and drank rye.

Holt scowled. These weren't the old-fashioned large-sized bills. Sixty years, nuts! Not but what Smith looked that old; his wrinkled, sexless face might have been that of a decegenarian. Holt wondered what the guy had looked like when he was young. When would that have been? During the Civil War, most likely!

He stowed the money away again, conscious of a glow of pleasure that wasn't due entirely to the liquor. This was the beginning for Denny Holt. With a thousand dollars, he'd buy in somewhere and go to town. No more cabbing, that was certain.

On the postage-stamp floor dancers swayed and jitterbugged. The din was constant, loud conversation from the bar vying with the juke-box music. Holt, with a paper napkin, idly swabbed a beer stain on the table before him.

"You wouldn't like to tell me what this is all about, would you?" he said finally.

Smith's incredibly old face might have held some expression; it was difficult to tell. "I can't, Denny. You wouldn't believe me. What time is it now?"

"Nearly eight."

"Eastern Standard Time, old reckoning—and January 10th. We must be at our destination before eleven."

"Where's that?"

Smith took out a map, unfolded it, and gave an address in Brooklyn. Holt located it.

"Near the beach. Pretty lonely place, isn't it?"

"I don't know. I've never been there."

"What's going to happen at eleven?"

Smith shook his head, but did not answer directly. He unfolded a paper napkin.

"Do you have a stylo?"

Holt hesitated, and then extended a pack of cigarettes.

"No, a . . . a pencil. Thank you. I want you to study this plan, Denny. It's the ground floor of the house we're going to in Brooklyn. Keaton's laboratory is in the basement."

"Keaton?"

"Yes," Smith said, after a pause. "He's a physicist. He's working on a rather important invention. It's supposed to be a secret."

"O. K. What now?"

Smith sketched hastily. "There should be spacious grounds around the house, which has three stories. Here's the library. You can get into it by these windows, and the safe should be beneath a curtain about—here." The pencil point stabbed down.

Holt's brows drew together. "I'm starting to smell fish."

"Eh?" Smith's hand clenched nervously. "Wait till I've finished. That safe will be unlocked. In it you will find a brown notebook. I want you to get that notebook—"

"—and send it air mail to Hitler," Holt finished, his mouth twisting in a sneer.

"—and turn it over to the War Department," Smith said imperturbably. "Does that satisfy you?"

"Well—that sounds more like it. But why don't you do the job yourself?"

"I can't," Smith said. "Don't ask me why; I simply can't. My hands are tied." The sharp eyes were glistening. "That notebook, Denny, contains a tremendously important secret."

"Military?"

"It isn't written in code; it's easy to read. And apply. That's the beauty of it. Any man could—"

"You said a guy named Keaton owned that place in Brooklyn. What's happened to him?"

"Nothing," Smith said, "yet." He covered up hastily. "The formula mustn't be lost, that's why we've got to get there just before eleven."

"If it's that important, why don't we go out there now and get the notebook?"

"The formula won't be complete until a few minutes before eleven. Keaton is working out the final stages now."

"It's screwy," Holt complained. He had another rye. "Is this Keaton a Nazi?"

"No."

"Well, isn't he the one who needs a bodyguard, not you?"

Smith shook his head. "It doesn't work out that way, Denny. Believe me, I know what I'm doing. It's vitally, intensely important that you get that formula."

"Hm-m-m."

"There's a danger. My—enemies—may be waiting for us there. But I'll draw them off and give you a chance to enter the house."

"You said they might kill you."

"They might, but I doubt it. Murder is the last recourse, though euthanasia is always available. But I'm not a candidate for that."

Holt didn't try to understand Smith's

viewpoint on euthanasia; he decided it was a place name, and implied taking a powder.

"For a thousand bucks," he said, "I'll risk my skin."

"How long will it take us to get to Brooklyn?"

"Say an hour, in the dimout." Holt got up quickly. "Come on. Your friends are here."

Panic showed in Smith's dark eyes. He seemed to shrink into the capacious overcoat. "What'll we do?"

"The back way. They haven't seen us yet. If we're separated, go to the garage where I left the cab."

"Y-yes. All right."

They pushed through the dancers and into the kitchen, past that into a bare corridor. Opening a door, Smith came out in an alley. A tall figure loomed before him, nebulous in the dark. Smith gave a shrill, frightened squeak.

"Beat it," Holt ordered. He pushed the old man away. The dark figure made some movement, and Holt struck swiftly at a half-seen jaw. His fist didn't connect. His opponent had shifted rapidly.

Smith was scuttling off, already lost in shadows. The sound of his racing footsteps died.

Holt, his heart pounding reasonlessly, took a step forward. "Get out of my way," he said, so deep in his throat that the words came out as a purring snarl.

"Sorry," his antagonist said. "You mustn't gō to Brooklyn tonight."

"Why not?" Holt was listening for sounds that would mean more of the enemy. But as yet he heard nothing, only distant honking of automobile horns and the low mingled tumult from Times Square, a half block away.

"I'm afraid you wouldn't believe me if I told you."

There was the same accent: the same Castilian slurring of consonants that Holt had noticed when Smith spoke. He strained to make out the other man's face. But it was too dark.

Surreptitiously Holt slipped his hand into his pocket and felt the comforting coldness of the brass knuckles. He said, "If you pull a gun on me—"

"We do not use guns. Listen, Dennis Holt. Keaton's formula must be destroyed with him."

"Why, you—" Holt struck without warning. This time he didn't miss. He felt the brass knuckles hit solidly and then slide, slippery on bloody, torn flesh. The half-seen figure went down, a shout muffled in his throat. Holt looked around, saw no one, and went at a loping run along the alley. Good enough, so far.

Five minutes later he was at the parking garage. Smith was waiting for him, a withered crow in a huge overcoat. The old man's fingers were tapping nervously on the cane.

"Come on," Holt said. "We'd better move fast now."

"Did you—"

"I knocked him cold. He didn't have a gun—or else he didn't want to use it. Lucky for me."

Smith grimaced. Holt recovered his taxi and maneuvered down the ramp, handling the car gingerly and keeping on the alert. A cab was plenty easy to spot. The dimout helped.

He crept south and east to the Bowery, but, at Essex Street, by the subway station, the pursuers caught up. Holt swung into a side street. His left elbow, resting on the window frame went numb and icy cold.

He steered with his left hand till the feeling wore off. The Williamsburg Bridge took him into Kings, and he dodged and alternately speeded and back-tracked till he'd lost the shadows again. That took time. And there was still a long distance to go, by this circuitous route.

Holt, turning right, worked his way south to Prospect Park, and then east, toward the lonely beach section between Brighton Beach and Canarsie. Smith, huddled in back, had made no sound.

"So far, so good," Holt said over his shoulder. "My arm's in shape again, anyhow."

"What happened to it?"

"Must have hit my funny bone."

"No," Smith said, "that was a paralyzer. Like this." He exhibited the cane.

Holt didn't get it. He kept driving till they were nearly at their destination. He pulled up around the corner from a liquor store.

"I'm getting a bottle," he said. "It's too cold and rainy without a shot of something to pep me up."

"We haven't time."

"Sure, we have."

Smith bit his lip, but made no further objection. Holt bought a pint of rye and, back in the cab, took a swig, after offering his fare a drink and getting a shake of the head for answer.

The rye definitely helped. The night was intensely cold and miserable; squalls of rain swept across the street, sluicing down the windshield. The worn wipers didn't help much. The wind screamed like a banshee.

"We're close enough," Smith suggested. "Better stop here. Find a place to hide the taxicab."

"Where? These are all private houses."

"A driveway . . . eh?"

"O. K.," Holt said, and found one shielded by overhanging trees and rank bushes. He turned off lights and motor and got out, hunching his chin down and turning up the collar of his slicker. The rain instantly drenched him. It came down with a steady, torrential pour, pattering noisily, staccato in the puddles. Underfoot was sandy, slippery mud.

"Wait a sec," Holt said, and returned to the cab for his flashlight. "All set. Now what?"

"Keaton's house." Smith was shivering convulsively. "It isn't eleven yet. We'll have to wait."

They waited, concealed in the bushes on Keaton's grounds. The house was a looming shadow against the fluctuating curtain of drenched darkness. A lighted window on the ground floor showed part of what seemed to be a library. The sound of breakers, throbbing heavily, came from their left.

Water trickled down inside Holt's collar. He cursed quietly. He was earning his thousand bucks, all right. But Smith was going through the same discomfort, and not complaining about it.

"Isn't it—"

"Sh-h!" Smith warned. "The—others—may be here."

Obediently, Holt lowered his voice. "Then they'll be drowned, too. Are they after the notebook? Why don't they go in and get it?"

Smith bit his nails. "They want it destroyed."

"That's what the guy in the alley said, come to think of it," Holt nodded, startled. "Who are they, anyhow?"

"Never mind. They don't belong here. Do you remember what I told you, Denny?"

"About getting the notebook? What'll I do if the safe isn't open?"

"It will be," Smith said confidently. "Soon, now. Keaton is in his cellar laboratory, finishing his experiment."

Through the lighted window a shadow flickered. Holt leaned forward; he felt Smith go tense as wire beside him. A tiny gasp ripped from the old man's throat.

A man had entered the library. He went to the wall, swung aside a curtain, and stood there, his back to Holt. Presently he stepped back, opening the door of a safe.

"Ready!" Smith said. "This is it! He's writing down the final step of the formula. The explosion will come in a minute now. When it does, Denny, give me a minute to get away and cause a disturbance, if the others are here."

"I don't think they are."

Smith shook his head. "Do as I say. Run for the house and get the notebook."

"Then what?"

"Then get out of here as fast as you can. Don't let them catch you, whatever you do."

"What about you?"

Smith's eyes blazed with intense, violent command, shining out of the windy dark. "Forget me, Denny! I'll be safe."

"You hired me as a bodyguard."

"I'm discharging you, then. This is vitally important, more important than my life. That notebook must be in your hands—"

"For the War Department?"

"For . . . oh, yes. You'll do that, now, Denny?"

Holt hesitated. "If it's that important—"

"It is. It is!"

"O. K., then."

The man in the house was at a desk, writing. Suddenly the window blew out. The sound of the blast was muffled, as though its source was underground, but Holt felt the ground shake beneath him. He saw Keaton spring up, take a half step away, and return, snatching up the notebook. The physicist ran to the wall safe, threw the book into it, swung the door shut, and pause there briefly, his back to Holt. Then he darted out of Holt's range of vision and was gone.

Smith said, his voice coming out in excited spurts, "He didn't have time to lock it. Wait till you hear me, Denny, and then *get that notebook!*"

Holt said "O. K.," but Smith was already gone, running through the bushes. A yell from the house heralded red flames sweeping out a distant, ground-floor window. Something fell crashingly—masonry, Holt thought.

He heard Smith's voice. He could not see the man in the rain, but there was the noise of a scuffle. Briefly Holt hesitated. Blue pencils of light streaked through the rain, wan and vague in the distance.

He ought to help Smith—

He'd promised, though, and there was the notebook. The pursuers had wanted

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AT ALL NEWSSTANDS

it destroyed. And now, quite obviously, the house was going up in flames. Of Keaton there was no trace.

He ran for the light window. There was plenty of time to get the notebook before the fire became dangerous.

From the corner of his eye he saw a dark figure, cutting in toward him. Holt slipped on his brass knuckles. If the guy had a gun, it would be unfortunate; otherwise, fair enough.

The man—the same one Holt had encountered in the Forty-second Street alley—raised a cane and aimed it. A wan blue pencil of light streaked out. Holt felt his legs go dead and crashed down heavily.

The other man kept running. Holt, struggling to his feet, threw himself desperately forward. No use.

The flames were brightening the night now. The tall, dark figure loomed for an instant against the library window; then the man had clambered over the sill. Holt, his legs stiff, managed to keep his balance and lurch forward. It was agony; like pins-and-needles a thousand times intensified.

He made it to the window, and, clinging to the sill, stared into the room. His opponent was busy at the safe. Holt swung himself through the window and hobbled toward the man.

His brass-knuckled fist was ready.

The unknown sprang lightly away, swinging his cane. Dried blood stained his chin.

"I've locked the safe," he said. "Better get out of here before the fire catches you, Denny."

Holt mouthed a curse. He tried to reach the man, but could not. Before he had covered more than two halting steps, the tall figure was gone, springing lightly out through the window and racing away into the rain.

Holt turned to the safe. He could hear the crackling of flames. Smoke was pouring through a doorway on his left.

He tested the safe; it was locked. He didn't know the combination—so he couldn't open it.

But Holt tried. He searched the desk, hoping Keaton might have scribbled the key on a paper somewhere. He fought his way to the laboratory steps and stood looking down into the inferno of the cellar, where Keaton's burning, motionless body lay. Yes, Holt tried. And he failed.

Finally the heat drove him from the house. Fire trucks were screaming closer. There was no sign of Smith or anyone else.

Holt stayed, amid the crowds, to search, but Smith and his trackers had disappeared, as though they had vanished into thin air.

"We caught him, Administrator," said the tall man with the dried blood on his chin. "I came here directly on our return to inform you."

The Administrator blew out his breath in a sigh of deep relief.

"Any trouble, Jorus?"

"Not to speak of."

"Well, bring him in," the Administrator said. "I suppose we'd better get this over with."

Smith entered the office. His heavy overcoat looked incongruous against the celoflex garments of the others.

He kept his eyes cast down.

The Administrator picked up a memoroll and read: "Sol 21st, in the year of our Lord 2016, subject, interference with probability factors. The accused has been detected in the act of attempting to tamper with the current probability-present by altering the past, thus creating a variable alternative present. Use of time machines is forbidden except by authorized officials. Accused will answer."

Smith mumbled, "I wasn't trying to change things, Administrator—"

Jorus looked up and said, "Objection. Certain key time-place periods are forbidden. Brooklyn, especially the area about Keaton's house, in the time near 11:00 p. m., January 10, 1943, is absolutely forbidden to time travelers. The prisoner knows why."

"I knew nothing about it, Ser Jorus. You must believe me."

Jorus went on relentlessly, "Administrator, here are the facts. The accused, having stolen a time traveler, set the controls manually for a forbidden space-time sector. Such sectors are restricted, as you know, because they are keys to the future; interference with such key spots will automatically alter the future and create a different line of probability. Keaton, in 1943, in his cellar laboratory, succeeded in working out the formula for what we know now as M-Power. He hurried upstairs, opened his safe, and noted down the formula in his book, in such a form that it could very easily have been deciphered and applied even by a layman. At that time, there was an explosion in Keaton's laboratory and he replaced the notebook in the safe and went downstairs, neglecting, however, to relock the safe. Keaton was killed; he had not known the necessity of keeping M-Power away from radium, and the atomic synthesis caused the explosion. The subsequent fire destroyed Keaton's notebook, even though it had been within the safe. It was charred into illegibility, nor was its value suspected. Not until the first year of the twenty-first century was M-Power rediscovered."

Smith said, "I didn't know all that, Ser Jorus."

"You are lying. Our organization does not make mistakes. You found a key spot in the past and decided to change it, thus altering our present. Had you succeeded, Dennis Holt of 1943 would have taken Keaton's notebook out of the burning house and read it. His curiosity would have made him open the notebook. He would have found the key to M-Power. And, be-

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cause of the very nature of M-Power, Dennis Holt would have become the most powerful man in his world time. According to the variant probability line you were aiming at, Dennis Holt, had he got that notebook, would have been dictator of the world now. This world, as we know it, would not exist, though its equivalent would—a brutal, ruthless civilization ruled by an autocratic Dennis Holt, the sole possessor of M-Power. In striving for that end, the prisoner has committed a serious crime."

Smith lifted his head. "I demand euthanasia," he said. "If you want to blame me for trying to get out of this damned routine life of mine, very well. I never had a chance, that's all."

The Administrator raised his eyebrows. "Your record shows you have had many chances. You are incapable of succeeding through your own abilities; you are in the only job you can do well. But your crime is, as Jorus says, serious. You have tried to create a new probability present, destroying this one, by tampering with a key-spot in the past. And, had you succeeded, Dennis Holt would now be dictator of a race of slaves. Euthanasia is no longer your privilege; your crime is too serious. You must continue to live, at your appointed task, until the day of your natural death."

Smith choked. "It was *his* fault—if he'd got that notebook in time—"

Jorus looked quizzical. "*His?* Dennis Holt, at the age of twenty, in 1943 . . . his fault? No, it is yours, I think—for trying to change your past and your present."

The Administrator said: "Sentence has been passed. It is ended."

And Dennis Holt, at the age of ninety-three, in the year of our Lord 2016, turned obediently and went slowly back to his job, the same one he would fill now until he died.

And Dennis Holt, at the age of twenty, in the year of our Lord 1943, drove his taxi home from Brooklyn, wondering what it had all been about. The veils of rain swept slanting across the windshield. Denny took another drink out of the bottle and felt the rye steal comfortingly through his body.

What had it all been about?

Banknotes rustled crisply in his pocket. Denny grinned. A thousand smackeroos! His stake. His capital. With that, now, he could do plenty—and he would, too. All a guy needed was a little ready money, and he could go places.

"You bet!" Dennis Holt said emphatically. "I'm not going to hold down the same dull job all my life. Not with a thousand bucks—not me!"

THE END.

IN TIMES TO COME

The feature novelette for next month—practically a complete novel in itself; it's thirty thousand words—will be "Attitude," by Hal Clement. Like most of Clement's stories, it's a detailed working out of a neat problem: how to plan and carry out an escape when captured by a people who show every evidence of a well-developed ability at mind reading. And another neat problem for the would-be escapers to solve; why do the captors seem perfectly willing to permit them to plan, scheme, build gadgets and weapons, get all ready—and then step in and confiscate things at the last moment, when only the final break remains to be made?

There's the conclusion of Willy Ley's story of the end of the German Rocket Society, too. One of the most interesting parts of his discussion is the final summary, in which he states that there is no further reason for the organization and existence of a rocket society. And shows why. The German Rocket Society—up to the time it was smashed by the Nazis—was doing genuine, valuable engineering research; it was to rocket engineering something as the Amateur Radio Relay League is to radio engineering. Radio hams will fully appreciate that; to the uninitiate, it may better be understood if it is realized that the radio amateur experimenters did more toward opening up for use the ultra-high-frequency radio bands than any commercial organization.

And there will be the conclusion of C. L. Moore's "Judgment Night." When I read it first myself, I felt the last half was the best of it—and the last single page carries an impact equal to all the rest of the story! It'll stay with you for several days—I'll guarantee.

THE EDITOR.

M 33 In Andromeda

by A. E. van Vogt

It wasn't intelligence that permitted the creature to rule a galaxy. It had other ways of accomplishing that—and of making life exceedingly precarious for interstellar explorers.

Illustrated by Williams

The night whispered, the immense night of space that pressed against the hurtling ship. Voiceless susurration it was, yet somehow coherent, alive, deadly.

For it called, it beckoned and it warned. It trilled with a nameless happiness, then hissed with savage, unthinkable frustration.

It feared and it hungered. How it hungered! It died—and reveled in its death. And died again. It whispered of inconceivable things, wordless, all-enveloping, muttering flow, tremendous, articulate, threatening night.

"This is an opinion," said somebody behind Morton. "The ship ought to go back home."

Commander Morton did not turn from the eyepiece of the telescope through which he was peering. But he found himself waiting for others of the score of men in the control room, to echo the empirical statement of him who had already spoken.

There was only silence. Very slowly, then, Morton forgot the spectators, and concentrated on the night ahead, from which the disturbing sibilation was coming, stronger with each passing minute.

Lights were out there, a great swirl of them, an entire galactic system. Lights still so far away that the electronic telescope could only brighten, could not begin to enlarge the needle-sharp points of brilliance that made up the myriad units of the wheel-shaped universe.

Morton grew conscious of Gunlie Lester turning away from the other eyepiece; the astronomer said in a blank tone:

"Nothing, absolutely nothing. Basically, that system of stars looks no different from our own great galaxy. The thing is incredible. Vibrations almost palpably strong, overflowing the entire space-time continuum of a galaxy with two billion suns."

He stopped, finished more quietly: "Commander, it seems to me this is not a problem for an astronomer."

Morton released his own eyepiece, said grimly: "Anything that embraces an entire galaxy comes under the category of astronomical phenomena. Or would you care to name the science that is involved?"

Gunlie Lester said nothing; and Morton turned toward the men who sat in

the cluster of seats alongside the chromatic splendor that was the control board. He said:

"Someone suggested a few seconds ago that we turn around and go home. I would like whoever did so to give their reasons."

There was no reply; and, after a little, that was astounding. Morton frowned at the very idea that there was anyone aboard unwilling to acknowledge an opinion however briefly held, however quickly discarded.

He saw that the others were looking at him; and several of the faces had startled expressions on them. It was the long, thin, bony Smith who said finally, diffidently:

"When was this statement uttered, chief? I don't recall hearing it."

"Nor I!" echoed half a dozen voices.

"Eh!" said Morton sharply. Abruptly, he was tense, alert; his great shoulders squared; his eyes narrowed to steel-gray pin points. His voice rapped across the silence:

"Let me get this straight. There was such a statement, or there wasn't. Who else heard it? Raise hands."

Not a hand came up; and Morton held himself stiff as a board, said tautly:

"The words spoken were, as I remember them: 'This is an opinion. The ship should go home.' Notice the unusual, the almost formal phrasing. There is suggestion in that wording of something alien striving to be casually human.

"I admit," he went on, "that is a great deal to educe from such small evidence, but in moments of crisis quick opinions are better than none at all."

His gaze, steady and cold, swept the thoughtful faces before him. He finished quietly:

"I think, gentlemen, we had better face the fact that we have entered somebody else's stamping ground. And it's SOME somebody."

There was silence in the control room. But Morton noted with satisfaction that it was a silence of tight-lipped tensing against danger. He said softly:

"I am glad to see that no one is even looking as if we ought to turn back. That is all to the good. As servants of our government and our race, it is our duty to investigate the potentialities of a new galaxy, particularly now that the dominating power in the new system knows *we* exist. Its ability to project a thought into my mind indicates that it has already observed us, and, therefore, knows a great deal about us. We cannot permit that type of knowledge to be one-sided."

He finished on a harder tone: "I should say we were very wise indeed to spend seven months in the space between our galaxy and this one repairing the damage caused by that scarlet beast. There was some suggestion, I believe, of heading for a planet, and doing our fixing up in more congenial surroundings. In our wisdom, we played safe—But now, Kellie, as our sociologist, what do you think of the environment we're heading into?"

His gray gaze fixed on the bald-headed man, who adjusted his pince-nez, and said:

"That's a large order, commander. But I would say we are merely entering a civilized galaxy, and these whispers are simply the outward signs like coming out of a wilderness into an area under cultivation."

"*Some* cultivation," said Smith in a mournful tone. He hunched his long, bony body back into his seat. "Beg your pardon. As a biologist, I haven't any business in this conversation."

"You have every business," said Morton. "This is life with a capital L. But go on, Kellie."

Kellie said: "Remember, man, too, has left his imperishable imprint on his own galaxy. If he desires he can light fires that will be seen a hundred galaxies away; at his touch suns flash into Nova brilliance; planets leave their orbits, dead worlds come alive with green and wonderful verdure; oceans swirl and

rage where deserts lay lifeless under blazing suns.

"And even our presence here in this great ship is an emanation of man's power, reaching out farther than these vibrations around us have ever dared to go."

The long-faced Smith gave a dry laugh, said: "Man's imprints are almost always linear. When he acts in three dimensions, he is restricted to planets, and even there, he is, for all practical purposes, confined to the flat bosom of the land. His ships that cross the sea leave a gentle swell, which merges with the tide and, after an hour, cannot be traced by the finest instruments in the universe.

"His ships that fly the air likewise leave no trail in the wind. When they have passed, they might as well not have been for all the record they make.

"How can you, therefore, speak of such things in the same breath with *this?* Man, these pulsations are alive. We can feel them; and they mean something; they're thought forms so strong, so all-pervading that the whole of space whispers at us.

"This is no tentacled pussy, no scarlet monstrosity, no single entity, but an inconceivable totality of minds speaking to each other across the miles and the years of their space. This is the civilization of the second galaxy; and if a spokesman for that galaxy has now warned us to go away, all I can say is we'd better watch out."

Kellie said: "Merely a different form of imprint. Man—*ugh!*"

The exclamation had in it a terrible quality of dismay. As Morton stared at the sociologist in amazement, Kellie snatched his atomic gun. He was not a young man, but the speed of that draw showed reflexes of spring steel.

Almost straight at Morton, the intolerable energy from that gun belched. There was a thunder howl of agony behind Morton, then a crash that shook the floor.

The commander whirled, and stared with a sense of insanity at a thirty-foot armored beast that lay half a dozen feet to one side of him. As he stood there, half-paralyzed, a red-eyed replica of the first beast materialized in midair, and landed with a thud ten feet away. A third, devil-faced monster appeared, and half slid off the second, rolled over and over—and got up, roaring.

A second later, there were a dozen of the things.

As the first attack came, Morton drew his own gun, and, desperate, leaped toward the others, who were backed against the towering control board.

Guns raged even as he reached them. The beast roaring redoubled in intensity; metallike scales scraped metal walls and metal floors; claws rattled and paws thudded.

Morton paid no attention to the firing, or the frightful bellowing. Ignoring any possible danger from the side, he ran along the lowest tiered walk; and, in a moment had thrown the switch that activated the multiple energy screen around the outer walls of the ship.

As he turned to help his friends, a hideous shadow loomed beside him. Too late he brought up his gun. A three-foot mouthful of eight-inch teeth lashed forth to embrace him—and dissolved in a spray of violet fire from a gun somewhere to Morton's left.

A minute after that, the fight was over; and Morton turned to the young man who had saved his life.

"Thanks, Grosvenor," he said quietly. "That was fast, efficient work. If that is what Nexial training does for a man, I'll have to see to it that more of it is put into use around this ship."

The young Nexialist flushed. "I'm afraid my training had nothing to do with the fact that I happened to turn and see your danger. Besides—

"Besides, you were the efficient one, sir. By throwing the multiple energy screen around the ship, you prevented more of the beasts from getting through. And, after that, naturally, it was simple for us to kill those already inside."

Morton smiled, and put his great arm across the young man's slighter shoulders. Here was, he realized now that the immediate danger was over, an opportunity not to be missed.

Grosvenor was a problem. He was the first of the new, young supermen—so the radiopress called the graduates of Nexial training—but just what to do with him, how to use his all-around qualifications had been a puzzle from the day he was posted aboard the ship.

The *Space Beagle* swarmed with experts, who knew so much about their special subjects that they could not but regard a Jack-of-all-trades as an incomplete development.

For the first part of the trip, Grosvenor had absolutely nothing to do. Morton had noticed him occasionally, a lonely, aloof young man who existed on the outermost fringes of the ship's violent intellectual life. When the assistant of the astrogeologist was killed by a scarlet monster that boarded the ship, Grosvenor agreed to be substitute. But he did so without comment, seemed instead to withdraw further into his shell of reserve. He—

Morton forced the brief reverie out of his mind. "O. K.," he said, "we were all heroes. But now let's see what we've got here."

He did not let go of the young man, but drew him along, diffidence and all. They treaded their way gingerly among squirming remnants of monster bodies, Morton issuing orders in his quietest voice.

He fell silent finally, as a quaver of reaction set in. He thought: This must be a dream; it couldn't be real. These things transported alive across light centuries!

But a sick odor thickened the air. He kept slipping on the bluish-gray slime that was beast blood. The shiningness of disintegrated matter mingled with the air he breathed, bringing a sense of suffocation.

It was real, all right.

As Morton's commands bore fruit, cranes floated in, and began to remove carcasses, communicators buzzed with a crisscross of messages; and finally the picture was complete.

The reptilian creatures had been precipitated only into the control room. The Sensitives registered no material object such as enemy ship, or anything similar. The distance to the nearest star on the outer fringe of the second galaxy was a thousand light years, two hours journey at top speed.

Around Morton, men cursed as those scanty facts penetrated.

"A thousand light years!" Selenski, the chief pilot, ejaculated. "Why, we can't even send astroradio vibrations that far."

Another man said sharply: "Really, Commander Morton, is it wise to spend time and energy clearing up this mess, and generally concentrating on the inside of the ship, when it is the outside that matters? Come to think of it, you seemed to lose all interest in the outside the moment you had thrown the switch activating the multiscreen. Extremely dangerous, in my opinion."

Morton half turned, wearily. He was startled to realize that the criticism jarred him. He thought: "I'm upset, and if I am, so are the others."

Consciously squaring his great shoulders, he faced his critic, a construction technician, named Delber, a tall man with glasses. Morton said strongly:

"Are you serious?"

The other frowned. "Why, y-yes. A detailed study of space segments for trivia effects would seem simple precaution. This thing is BIG."

Morton said: "Do you realize that the multiscreen is the greatest defense ever devised by man? Either we can move behind its protecting vault calmly oblivious of all extrania, or else nothing can protect us."

Beside Morton, Grosvenor said fiercely to Delber:

"That screen, sir, is flawless not only mechanically but mathematically. It provides an infinite overlapping series; and that's a literal statement of its action."

The objector bowed sardonically first to Grosvenor, then to Morton. "In the face of such an ardent argument from one who knows all about every subject, I yield my opposition."

Grosvenor flushed, then turned pale before the satire. He walked off rapidly to one side. Morton half started after him, then stopped himself.

This was no time to nurse the sensitive ego of a bright young Nexialist. A council of war was the imperative necessity of the moment.

When the men were assembled, Morton pushed his bulk along one of the control board tiers overlooking the room. He began:

"We've gotten ourselves into quite a mess; and we're going deeper. I need hardly point out that for one ship to confront a galactic civilization of any real proportions has no relation whatever to our past dangers from individual super beasts.

"For the moment, we're safe behind our superb defenses, but the nature of the menace requires us to set ourselves limited objectives. Not too limited. We must find out why we are being warned away. We must discover the nature of the danger and of the intelligence behind it, and it is just possible we can interpret up to a point what has happened. The facts are as follows:

He enumerated them briefly: The mind whisperings, the mental warning, the attack on the control room only—He finished:

"I see our chief biologist is still examining our late adversaries. Smith, what kind of beasts are they?"

Smith turned from one of the monsters. "Purest primeval reptile," he said briskly. "Earth could have produced their type during the dinosaur age. Judging by the two brains I've cut out, intelligence is about point oh four."

Morton frowned. He said finally, slowly: "Gourlay tells me, the beasts must have been precipitated through hyperspace. I'm sure he can tell us how this will affect our entire offensive and defensive position. Go ahead, Gourlay."

Morton waited, quietly, his gaze expectantly on the slouched figure of the communications expert. Abruptly, he was startled. Gourlay, the great man of the ship next to Kent—that Gourlay slow in responding. Perhaps better than anyone on the ship, Morton knew the extraordinary man, whose drawl and surface laziness concealed a mind that was chain lightning. If the information, the capacity for counteraction existed, Gourlay would know about it; and it would be there on the tip of his tongue, slow, concise, immensely coherent. He—

Gourlay was straightening; and Morton breathed again. "Hyperspace," came the familiar drawl, "is not strictly an energy field, though there is a relation. You all know what space is: a tension in time; the function involved is roughly time plus an environment of the basic energy *deka*.

"Somebody once likened the result to the skin of an expanded balloon; fortunately, when pricked, this balloon repairs itself, taking eons of time in the emptiness of space, but quickly when there is a gaseous envelope like the atmosphere of a planet surrounding the break. However, the atmosphere required does not have to be dense. So long as there is something, a gap in hyperspace is repaired in a few moments.

"Men have made considerable effort to use hyperspace, but the great drawback has been the need for gas around the outlet and inlet. Otherwise, there is a catastrophic explosion, which reduces all matter in the vicinity to time plus *deka*."

He stopped there; and it was several seconds before it struck Morton that he was finished.

"Just a moment," the commander said hastily, "we all know that man uses hyperspace in planet to planet transmission of material objects. Why shouldn't he, therefore, be able to transmit from a planet to this ship? After all, we've got an atmosphere inside here."

Gourlay said: "The problem of focusing a hyperspace transmitter on a ship whose speed is measured in light-year units involves about nine hundred thousand dimensions, mathematically speaking. Accordingly, it's impossible even theoretically. I think that should answer all your questions."

Having spoken, Gourlay leaned back and closed his eyes. Morton waited, but there was no further sign from the man.

The whole effect was unpleasantly un-

satisfactory; and Morton, who had a very sharp sense of human reaction to bad news, said coolly:

"Obviously, there's no one in the world *that* much smarter than we are. There must be simple solutions to the problem of hyperspace which our scientists missed out on.

"No doubt, of course, that these beings have got a lot on the ball, but they haven't penetrated the multiple energy screen around the *Space Beagle.* On top of that they pulled the damnedest, dumbest trick in attacking us with a bunch of mindless monsters, when they could have taken the ship by using a more intelligent and organized attacking force, and exploiting their initial surprise to the full. And, finally, they must be scared stiff of our finding out something dangerous if they don't even want to let us into their galaxy."

"Look, Morton," said a bass-voiced man, "if that little pep talk is designed to brace up our morale, you'd better think again. The fact is we're up against something so big we can't even imagine it. Let's start from there."

It was, Morton reflected grimly, a damned low starting point.

He stood for a moment, then, a brooding giant of a man. His heavy face was dark with the determination that was growing into it. He said finally:

"I don't accept that pessimism so completely. We're alive. That's proof that we're not pushovers to whatever is out there."

Slowly, he relaxed. He waved one great hand toward a group of men who sat at his left. He said:

"I see our military expert sitting well to the forefront over there. He's had about point oh four work to do since this voyage started, but I think we can use his knowledge at last. What do you make of the attack, Dysart?"

Dysart was a medium-sized, oldish man with a lined face and a bushy beard. He had a sour voice. He said:

"If the objective was our destruction, it failed one hundred percent. If the intention was to scare us, the assault was a smashing success."

There was a little flurry of laughter, and Morton smiled with a grim satisfaction at the relaxing of tension in the enormous, domed room. He waited a moment, then said:

"Supposing the intention was not destruction."

Dysart looked abruptly more serious. "I see this affair as a progression of warnings. First, there was a mental warning, now has come a concrete warning."

His expression grew darker, and the sour rasp in his tone took on a more resonant quality:

"I will not speculate on the purpose behind the warnings. But I think we can safely draw the conclusion that the beasts were symbols of a remorseless and murderous determination, and that the purpose behind them was no mere friendly advice to get out."

"There is no doubt," said a small man at the back of the room, "that a great effort is being made to get us to turn around and go back home—*alive!*"

Morton called: "Come on out here, Kent, and explain that."

He frowned in puzzlement as the little chemist pushed forward from his seat. Morton regarded Kent as the smartest man on the ship, but the significance of the scientist's words completely escaped him.

In a ringing voice, Kent began: "It's possible I have the wrong slant on things, but I always look for ulterior motives. You people see an effort to keep us away from the galaxy we are approaching. My mind instantly jumped to the possibility that our friend out there would like to know where we came from."

Morton said slowly: "Maybe you've got something there, Kent."

Kent continued: "Just look at it from—his—point of view. Here is a

ship approaching from a certain general direction. In that direction, within ten million light years, are a large number of nebulae, star clusters, star clouds. Which is us?"

There was a dead silence in the room. Morton had the queer feeling that men were shuddering, each from his own mental picture of the hell that could be here. It was Smith who said finally in a gloomy voice:

"What would you suggest, Kent?"

The little chemist replied promptly: "Destruction or scrambling of all identification star charts or pools. Gunlie Lester, his assistant and all the people aboard who have too much astronomical knowledge in their heads to wear space-suits with energy guards whenever and wherever we land.

"It is possibly already too late. We know that the creature has been poking around in Morton's brain, and God only knows how many other minds he's ransacked. We'd better start exploring this galaxy at top speed, and we'll be wise to see to it that nowhere along the line does our enemy have even an edgewise chance to study us again."

He broke off. "Morton, when do we get to the nearest star of this galaxy?

"Approximately three hours," said the commander.

The meeting broke up in silence.

The first sun grew big out of space, a ball of light and heat, burning furiously into the great night, and supporting seven planets.

One was habitable, a world of mists and jungles and nightmare beasts. They left it, unexplored, after flashing low over an inland sea, across a great continent of marsh and fungi growth.

Left it because, as Morton said: "We have set ourselves an objective: to find the nature of the intelligence that dominates this galaxy. Conceivably the clues may exist in the fastness of the jungle below—I wouldn't be surprised if the beasts that were precipitated into the control room came from there—but I think we should search for a more civilized source of evidence."

Lonely and remote were the suns at this distant rim of the galaxy. They spun on their courses, aloof, like glowworms on a clouded night, in their relation one to the other. Three hundred light years, the *Space Beagle* sped, and came to a small red sun with two planets crowding up close to its cherry-red warmth.

One of the two planets was habitable, a world of mists and jungles and nightmare beasts. They left it, unexplored, after darting down low over a marshy sea and a land choked with fungoid growth.

There were more stars now; a sprinkle of them daubed the near distance of the next hundred light years. A large, blue-white sun sporting thirty-seven planets attracted the superbly swift Earth ship.

The great machine spat out of space, raged past seven planets that were burning hells, spiraled toward the three close-together planets that were habitable—and flicked off into the night with its startled crew.

Behind, three steamy jungle planets swirled in their separate, eccentric orbits around the hot sun that had spawned them. "Identical triplets, by God!" Gunlie Lester exploded on the general communicator. "Morton, the axial tilt of those planets was a design to regulate their heat to the requirements of a jungle world. Somebody's deliberately creating primeval planets. If the next sun has a jungle world also, I think we'd better investigate."

The fourth star was Sol-size, Sol-type. Of its three planets, one made a neat orbit at eighty million miles, a steaming world of jungle and primeval seas.

The *Space Beagle* settled through that gaseous envelope and began to fly along at a low level, a great, alien ball of metal in a fantastic land.

In the geology lab, Grosvenor watched the bank of instruments that registered the nature of the terrain below. Particularly, he stared with strained attention at the density recorder needle as it shifted along its thin range of mud, stone, clay, mud, water, fungi—

The needle jumped like flame in high wind—steel, clay, concrete, steel.

Steel!

Grosvenor reacted. His hand snatched up at the geared alarm, and tugged with the frantic sense that it was his strength that must stop the mighty ship. He let go only when the voice of Jarvis, his superior, rasped beside him, reporting to the control room:

". . . Yes, Commander Morton, steel not just iron ore. Our instruments are registering developed metal, not nature in the raw. Depth? . . . What's the depth there, Grove?"

"T-ten, twenty, f-fifty feet!" Grosvenor stammered. Inwardly, he cursed the way his heart was pounding, caught his voice into a stiff bar of sound. "It varies, and it's spread over a wide area."

Jarvis was saying into the communicator: "As you know, commander, we set our instruments at fifty feet maximum. This could be a city buried in the jungle mud."

It was in a way. It was an incredible rubble of what had been a city. The scenes uncovered by the drillers were shambles. Everywhere was shattered

steel and concrete and stone. And bodies!

The bodies were at the street line about fifty feet below the surface; a whole pack of them turned up where Grosvenor was directing a drilling crew. Everything stopped as the great men of the ship came over to examine the find.

"Rather badly smashed," said Smith, "but I think I can piece together a coherent picture."

His skillful fingers arranged an assembly of scattered bones into a rough design. "Four-legged," he said. He turned a curious hazy light on the fragile structure. "This one has been dead about twenty-five years."

He frowned, and picked up a bone, and brought the hazy, whitish light nearer to it. "Funny," he said, "there's a resinous substance on this end of the bone that's impervious to ultra-light. It reflects it. In all my experience, nothing concrete, nothing except energy itself has ever stopped ultra-light. Kent, what do you make of that?"

He handed the bone over; and Grosvenor stood, watching and waiting. He felt fascinated, not by the mystery of the bone, but because time and again, since he had joined the ship's company, he had tried to picture the difference between himself and these men.

Perhaps, he thought now, with intense absorption, it was this ability of theirs to concentrate utterly on some detail of their special science.

Whereas he, Grosvenor, had already rejected as irrelevant everything directly connected with the bones of these long-dead creatures. These were the pitiful victims, not the arrogant and deadly destroyers.

The shattered relics that lay around in such abundance might hold the secret of the fundamental physical character of a vanished race, but no clue could there be *in them* of the unimaginably merciless beings who had murdered them.

The incredible beings who went around deliberately jungle-izing habitable planets.

In spite of his conviction of irrelevancy, Grosvenor had a brief, vivid, mental picture of a civilization of four-legged, two-armed, small-headed creatures whose bodies could reflect every wave of light. And then, Morton's voice was resonating quietly on the general communicator:

"The . . . curious . . . reflecting feature of the bone . . . undoubtedly deserves study, but in more leisurely moments, not now when our whole will and effort must be concentrated on our search to locate the great forces that rule this galaxy."

It was vindication for his own opinion. But Grosvenor said nothing. A dark thought came that the vanished race had not been able to reflect the millions of tons of earth that buried them and all their works. But he had no sense of tragedy.

There was excitement in him, and an intense pleasure in the scene of men working with machines that were almost human in their sensitivity, abnormal and terrible in their irresistible power.

For the moment, he felt a part of the scene. Up to a point, it was a geology show. As the geologists were Jarvis and himself, and Jarvis was too busy to bother him, for the first time Grosvenor was on his own.

He flew from drill crew to drill crew, setting up his instruments, registering for five hundred feet now, testing the earth the drills removed.

His communicator buzzed with voices, but only occasionally did he tune them in. Once when he heard Jarvis talking, he listened as his superior said:

"Commander Morton, I'm willing to commit myself. The jungle is a superimposed layer. It was *brought* here in some sort of a cataclysm. The strata below resembles that of an older, less primitive planet. It could have been Earth, with certain variations. I would suggest that an astronomical study be

made of nearby planets to determine if they show any of the effects that must have resulted when this planet was violently moved out of its original orbit, and violently put into its present one."

It was about half an hour later that Zeller, the metallurgist, added his words to the developing picture of a cosmic catastrophe. Zeller's voice blurred on the communicator:

"This broken steel girder was rolled less than seventy-five years ago. Its electronic fatigue gap is only $23x10^{-14}$."

"Thanks!" Morton's voice was quiet. "I think we can be pretty safe now in assuming that the catastrophe was of comparatively recent origin. Accordingly, our work on this planet may be considered finished. I'm going back to the ship now, and I'll issue a general recall from there."

Grosvenor was thinking unsteadily: "If I could solve this mystery! If I could even get the first clue— The next planet, of course, will be jungle, too, and I'll concentrate on—"

His thought drained like water running down a sinkhole. His brain twirled. He whispered finally, shakily:

"*The next planet will be jungle, too*— Good God, that's it! That's the angle— and I'm the only one on all the ship who can handle it."

With an effort, he caught that egotistical twist of his mind. He thought with wry grimness: It was the solution of the problem that counted, not who solved it. But the thought that had come wouldn't go away.

For beyond all doubt, the hour of hope had struck for the lone, despised Nexialist of the battleship *Space Beagle.*

Now that the moment was here, Grosvenor felt a spasm of doubt. He stood near Morton looking at the seated scientists and there was no sense of satisfaction in the victory that was going to be his. He grew aware of Morton pushing forward, and raising his hand for silence. The commander said:

"You have probably been wondering, all of you, the purpose of our careening around during the past two days. As you know, we have visited three widely separated star systems, and it is interesting to note in that connection that no interference has been offered to our flight. Where we willed to go we went.

"What you do not know is that the stars we visited were selected for investigation by Nexial mathematics under a theory conceived and executed by Elliott Grosvenor. Grosvenor, tell your colleagues what you discovered."

Astoundingly, it was a bad moment for Grosvenor. He stood, shaking inwardly, in abrupt funk. He stood in the grip of a hell of unexpected thoughts that included the devastating realization that you couldn't just face men whose attitude had denied your intelligence and training. All the months that he had been treated like a grown-up child reached at his tongue and twisted at it, striving to stop him from speaking.

The curious thought came finally that there was only one way to begin a speech; and that was to begin it. He said:

"What I did was to obtain from Gunlie Lester his most developed photographic map of this galaxy. The important thing there was that he had already marked the galactic longitude and latitude planes, and the course we had taken.

"I must now call your attention briefly to a branch of science which has not, I know from experience"—Grosvenor smiled bleakly—"commended itself very highly to the science specialists of this great ship with which we are to explore the entire attainable universe. I refer to the science of Nexialism, which has its own mathematics, and is a method of training designed to bridge the gap between facts that are related but separated, for instance, by being contained in the brainpans of two individuals. Nexialism joins. It seeks to unify apparent irrelations; and its scope is so great that the data of an entire galaxy is not too

complicated for it to cast into a recognizable design."

Grosvenor paused. Because he was doing well. His voice was cool and steady. His brain was working with hair-trigger, split-second alertness. He went on; and his voice sounded thrillingly clear in his own ears:

"As I saw it, what we were primarily interested in was this: Are all the planets of this galaxy jungle-ized, or aren't they? The mathematics involved—"

He saw that the men were staring at him. "Good heavens," somebody said, "if you can prove that—"

Triumph was sweet, but it had a strong drink quality, too. It put a tremor into Grosvenor's voice, as he interrupted:

"It is proved, sir. The three-star systems we have just visited were selected by Nexial mathematics. When examination verified that their habitable planets were jungle worlds, it followed automatically that every habitable globe in this entire vast galaxy was a land of jungle and beasts."

He had them now; there was no doubt of that. Men stirred, and looked at each other. Finally, the great Smith said:

"But, Grosvenor, what about the intelligences that rule this galaxy? We've opened the multiscreen several times; and the roar of myriad thoughts remains. There are colossal minds out there. They can't possibly be living on monster-inhabited jungle planets."

Grosvenor said quietly: "Mr. Smith, this whole problem is solved. The intelligence out there is a single entity. We *know* what it is. If you will have a moment of patience—"

"Gentlemen"—it was Morton, smiling but grim—"what you are hearing is no fantastic theory. These are the facts. You are listening to the recount of the most brilliant one-man show that has ever been staged. Go on, Grosvenor."

There was dead silence, then, except for the pattern that Grosvenor's voice made against the quiet vastness of the control room.

He told them the thoughts that had led up to the finale, his attempts to fit in what Gourlay had said about hyperspace, the need for a gas environment, and possibly for some nearby directive to control the aim of the transmitter.

"I went down finally to the engine room to check the graph of power discharge of automatic C-9." Grosvenor smiled almost apologetically. "We have *so* many automatic devices aboard this ship, that some of them never receive any attention except mechanical check-ups. This is particularly true of our automatic screens against the presence of tenuous matter in space.

"Suffice to say that C-9 had been on from the moment we heard the space whisperings until we slapped on the multiple screen, the complicated energy structure of which, of course, assumed C-9's duties."

Grosvenor went on: "With Commander Morton's permission I then had the multiple screen briefly cut off, sent out a G-ship and obtained a representative sample of the space around us. I tested this myself, then for verification took it to Mr. Kent who—"

"What's that?" Kent was on his feet; there was a wild look in his eyes. "Was that gas you brought me a sample of surrounding space? Why, it's a hydrogen carbon compound, stabilized by a three-tie juncture with the brain cell element that—"

He broke off: "Good heavens, man, it's life. It's—"

"But why does it jungle-ize planets?" a man cried.

Grosvenor silenced the gathering clamor by raising his hand. "I can answer that, too. The problem actually was, what did it feed on? I tried various methods of stimulation and—"

The *Anabis* lay in an immense, suffused, formless form, spread through all the space of the second galaxy. It

writhed a little, feebly, in a billion portions of its body, shrinking with automatic adjustment away from the destroying fury of two billion blazing suns, but pressing down tight against the myriad planets, sucking with a feverish, insatiable hunger around the quadrillion tingling points where were dying the creatures that gave it life.

It wasn't enough. Through all the countless, tenuous cells of its titanic structure, that dread knowledge of an imminent starvation seeped to the farthest reaches of its weakened body-gigantic.

Not enough food, the dreary message pulsed on and on through its imponderable elements, not enough, not enough—its mass was too big. It had made a fatal mistake in growing with such vast abandon during the early days.

In those years the future had seemed limitless, the Galactic space where its form could wax ever huger had seemed of endless extent; and it had expanded with all the vaunting, joyous egoism of a lowborn grown conscious of stupendous destiny.

It *was* lowborn. In the dim beginning was only gas oozing from a mist-covered swamp. Odorless, tasteless, colorless gas, yet somehow, someway, a dynamic combination was struck; and there was life.

At first it was nothing but a puff of invisible mist ardently darting hither and thither over the muggy, muddy waters that had spawned it, darting, twisting, diving, pursuing, incessantly and with a gathering alertness, a gathering need, striving to be present while something—anything—was being killed.

For the death of others was its life.

What a terrible joy it was to swoop over two insects buzzing in a furious death struggle, envelope them, and wait, trembling in every gassy atom, for the life force of the defeated to spray with tingling effect against its own insubstantial elements.

There was a timeless period then when its life was only that aimless search for food; and its world was a narrow swamp, a gray, nubiferous environment where it lived its contented, active, idyllic, almost mindless existence.

But even in that world of suffused sunlight it grew bigger imperceptibly. It needed more food, more than any haphazard search for dying insects could bring it.

And so it developed cunnings, special little knowledges that fitted the dank swamp. It learned which were the insects that preyed and which the prey. It learned the hunting hours of every species, and where the tiny non-flying monsters lay in wait—the flying ones were harder to keep track of. It learned to use its eviscerated shape like a breeze to sweep unsuspecting victims to their fate.

Its food supply became adequate, then more than adequate. It grew and once more it hungered.

By purest necessity it became aware of a world beyond the swamp. And, oh, what a day it was when it ventured forth, and came upon two gigantic armored beasts at the bloody climax of a death struggle. The sustained thrill of the defeated monster's life force streaming through its vitals, the stupendous quantity of force provided ecstasy greater than that experienced during all its previous life put together.

In one brief hour, while the victor devoured the writhing vanquished, the *Anabis* grew by ten thousand times ten thousand.

During the single day and night period that followed, the steaming jungle world was enveloped. The *Anabis* overflowed every ocean, every continent, and spread up into the brighter reaches of the atmosphere, where the sun shone on it directly for the first time.

Explosive result! Later, in the days of its intelligence, it learned that sunlight provided a necessary reaction on its elements, provided mass and weight.

But in that first minute there was

only the effect, the dynamic expansion. On the second day it reached the first, adjoining planet. It reached the limits of the galaxy in a measurable time, stretched out instinctively for the shining stuff of other star systems and met defeat in distances that seemed to yield nothing to its groping, tenuous matter.

The days of its power seemed but a moment. Jungle worlds, with their prolific life-and-death cycles chilled; the supply of life force diminished notably. It hungered and once more grew in cunning.

It discovered that by concentrating its elements it could make holes in space, go through, and come out at a distant point. It learned to transport matter in this fashion. It began to jungle-ize planets long before it discovered that some of them were inhabited by curious, intelligent things.

It believed—and there was no one to dispute—that primeval worlds provided the most life force. It transported great slices of other jungle worlds through hyperspace. It knocked cold planets nearer their suns.

And it wasn't enough.

The coming of the ship brought hope. It would follow the ship to wherever it had come from; and, after that, no more wild, mindless, greedy growth—

Pain! The ship after darting aimlessly about, landed on a barren planet, and was sending forth incredible agony.

Darkness made no difference. The *Space Beagle* crouched on a vast plain of jagged metal, every porthole shedding light, great searchlights pouring down their flood of illumination on the row on row of engines that were tearing enormous holes into the hard, all-iron world.

There was no attempt to make steel, simply the creating of unstable iron torpedoes that were launched into space at the rate of one a second. That was the beginning.

By midnight the manufacturing machine itself began to be manufactured; and each one in turn created those slim, dark torpedoes that soared into the surrounding night scattering their substance a quarter of a light year to every side. Thirty thousand years those torpedoes would shed their destroying atoms; and they were designed to remain within the gravitational field of their galaxy, but never to fall on a planet or into a sun.

As the slow, red-dawn crept toward fruition, Engineer Pennons reported hoarsely to Morton:

"We're now turning out nine thousand a second; and I think we can safely leave the machines to finish the job. I've put a partial screen around the planet to prevent interference. Three more iron worlds properly located; and I think our bulky friend will begin to have a hollow feeling in his vital parts. But what comes after that?"

Morton smiled grimly: "N. G. C. fifty thousand three hundred forty-seven."

Pennons whistled. "Nine hundred million light years! Do you think it will follow?"

"It's got to. The alternative is to be destroyed by our torpedoes, or a blind stab at another galaxy of its own choosing. But we'll see—"

Through telescopes they watched the faint fuzz of gas stream out behind them and follow.

Morton turned finally from the eyepiece. "We'll go on for about a year," he said, "then go invisible and turn aside."

As he was going out of the door a few minutes later, he came upon Zeller and Grosvenor. The metallurgist was saying:

"Er, Grosvenor, I have a little problem in metal chemistry that I think needs tying up with an energy function. Do you think Nexialism could—"

Grosvenor said: "Why, I think so, Mr. Zeller. What—"

Morton passed on, smiling.

THE END.

When Is When?

by Malcolm Jameson

It's pretty hard for a man to get into real trouble with a time machine on hand to yank him out of it. But Anachron Inc. was missing several groups of agents—agents that vanished into nowhen!

Illustrated by Kramer

It was a fine balmy morning in May, when spring is in the air and the promise of early summer. It was the kind of day when a fellow felt like banging his desk shut and going fishing. It was the kind of day—well, it was a swell day. And Barry felt swell, too. He could hardly keep from bursting into joyous whistling despite the company's ironclad rule, as he strode happy and carefree down one of the Anachron Building's endless corridors. For only a moment ago the ponderous doors of the room where the solemn Discipline Court sat had opened to let him out—not only acquitted, but completely exonerated of having broken Rule G-45607. It was great!

Not that it had been easy. The members of the board had been tough at first and bawled him out more than once for what they termed quibbling and hair-splitting. It did him no good to insist that the job of being Emperor of Rome was wished on him and that strictly speaking he had never "accepted" the post at all. What got him off—technically, that is—was a bit of slippery sophistry concerning the meaning of the word "public" as used in the original rule. One standard definition of the word meant pertaining to the communal good, or its improvement. Barry contended that since intertemporal commerce benefited all concerned, *any* employee was, therefore, a holder of public office in the era where he operated, from which it followed that all of them were constantly violating the rule. On the other hand if "public office" was to be taken in the narrower sense of being a post in national government, Barry had provided himself with an out on that. His first official act on realizing he had been made emperor was also to assume the role of Pontifex Maximus, whereupon he promptly deified himself. Then, being a living god with appropriate powers, he abolished the empire and set up a theocracy with himself as head, and made it all retroactive.

"So, gentlemen," declared Barry stoutly, "I was never emperor at all. I took the title of Jupiter Atlanticus, and everybody knows there is nothing political about that."

The judges frowned, and went into a huddle. But Barry didn't worry. He

was sitting pretty and he knew it. It was just like the old army days. Company rules, like the army regulations, covered every conceivable thing in the minutest detail. If a fellow learned them all and took care never to break a one—well, he never got in trouble, but likewise he never got far. Smash a rule and one of two things invariably happens. You either get kicked out, or somebody pins a medal on you. It all depends on the outcome. So Barry smiled and waited. He had done all the undoable things they had told him to do—broken up Cassidy's rackets, sent Cassidy home in disgrace, and, best of all, had made scads of money for the company. Now he had given them the formula for the whitewash. Let them mix it up and spread it on.

Thus it was that a few minutes later he was on his way to his boss' office, dazzling with synthetic purity. He wanted to be the first to tell Kilmer the good news, for if Kilmer was having his usual run of headaches he would be needing good news by this time of day. Probably Kilmer had had something to do with his prompt acquittal, but Barry did not intend to be overgrateful on that score, for Kilmer was prone enough to hand out impossible jobs already. So with that in mind he came to the sales manager's door.

When he barged into the latter's office he found things quite in accord with the Kilmer tradition. A red-faced and sputtering fieldman was on the carpet, trying vainly to explain away a failure. Kilmer was taking it characteristically, pacing the floor like a caged thing, tearing at his hair and swearing steadily in a lugubrious monotone. But the fieldman was standing his ground.

"All right, Mr. Kilmer," he said doggedly, "believe it or not, but I'm telling it to you straight. If you don't think so, hop into one of your gilded executive shuttles and take a run down for a look-see yourself. Maybe those dopes in Shuttle Service sent me to the wrong date, though they swear they didn't. And then again, maybe the histories are wrong—"

"Don't be a jackass, Dilworth," snapped Kilmer. "How can the histories be wrong? Certainly not about something that happened in my own lifetime. Why, I was in Siberia at the time, with the American Expeditionary Force, and I know. Why—"

"O. K., O. K.," said Dilworth, sullenly. "So you were there. So was I. In Moscow. Not two hours ago. Maybe there was such a person as Lenin and the Bolsheviks you talk about back in 1918. But when I got there they hadn't got the news. The church bells were all ringing and Cossacks were clearing the streets of the rabble. There were processions of priests. It was about the Czarevitch's birthday, or something—"

"You are driving me crazy," yelled Kilmer, biting his cigar in two. "The Czar and the Czarevitch and all the other Czarewhatnots were dead when you got there. The priesthood was abolished, and there weren't any more Cossacks. Oh, get out, before I lose my temper."

"Yes, sir," said the fieldman grumpily, and turned to go. Barry saw that he was dressed the part—in dirty gray blouse over baggy trousers tucked into Russian boots—and appropriately seedy looking as befitted a Comrade of the Proletariat.

"*I,*" Kilmer announced mournfully, "am going nuts. Your Roman affair was headache enough, but it can't touch this business of disappearances and mix-ups."

"What disappearances and mix-ups?" asked Barry, innocently. "I haven't been here, you know. I've been busy needling the spirit of progress into the decadent Roman Empire."

"So you have," said Kilmer absently. He glared for a moment at his piled-up desk, and then dug around until he found a basket tagged with a huge question mark. He pulled out some memoranda.

"You are a fellow with dizzy ideas," Kilmer began, "but they *do* seem to work. Maybe you can help me. A couple of months ago the Policy Board made an important reversal of policy. You may remember that heretofore, Ethics kept us from doing intertemporal commerce with warring nations whenever they thought the cause of one or the other was unjust and their winning might work out badly. They loosened that rule a bit. They said we might sell to them provided we sold to both sides at the same time. That is, it was O. K. to let Napoleon have machine guns so long as we also gave Wellington a crack at them. See?"

Barry nodded.

"Our first two approved projects were the French and Indian Wars in this country, back in colonial days, and the row between the English and the Spaniards around the time of the Armada. So we fitted out four expeditions. One was to have gone to Philadelphia and contacted Ben Franklin in order to outfit the Braddock army. One went to Quebec to deal with General Montcalm. Then we sent one to Elizabethan England to dicker with Queen Bess and Francis Drake. The fourth we sent to Spain to sell 'em ships and guns for the Armada. Well, two of them got there. The other two vanished somewhere along the line. They just *aren't* any more."

"Overshot the mark, perhaps," suggested Barry. He had often wondered where a wild time shuttle might end up if something went wrong with the brakes. "Maybe they have been eaten by dinosaurs."

Kilmer shook his head.

"Impossible with the new shuttle system. It used to be that now and then somebody would abscond and skip out to the past with the dough and one of our shuttles, and there was a case or so of highjacking. We changed the shuttle operating mechanism to forestall that. Nowadays the operator in the car has nothing to do with its control. The starter punches the exact date and hour required, together with the geographical co-ordinates. Then he computes the amount of power needed to push the car to that definite point. When the car reaches its destination and is ready to return, the operator signals for the back pull. Then the starter gives him more energy, but in reverse. A shuttle *can't* get lost."

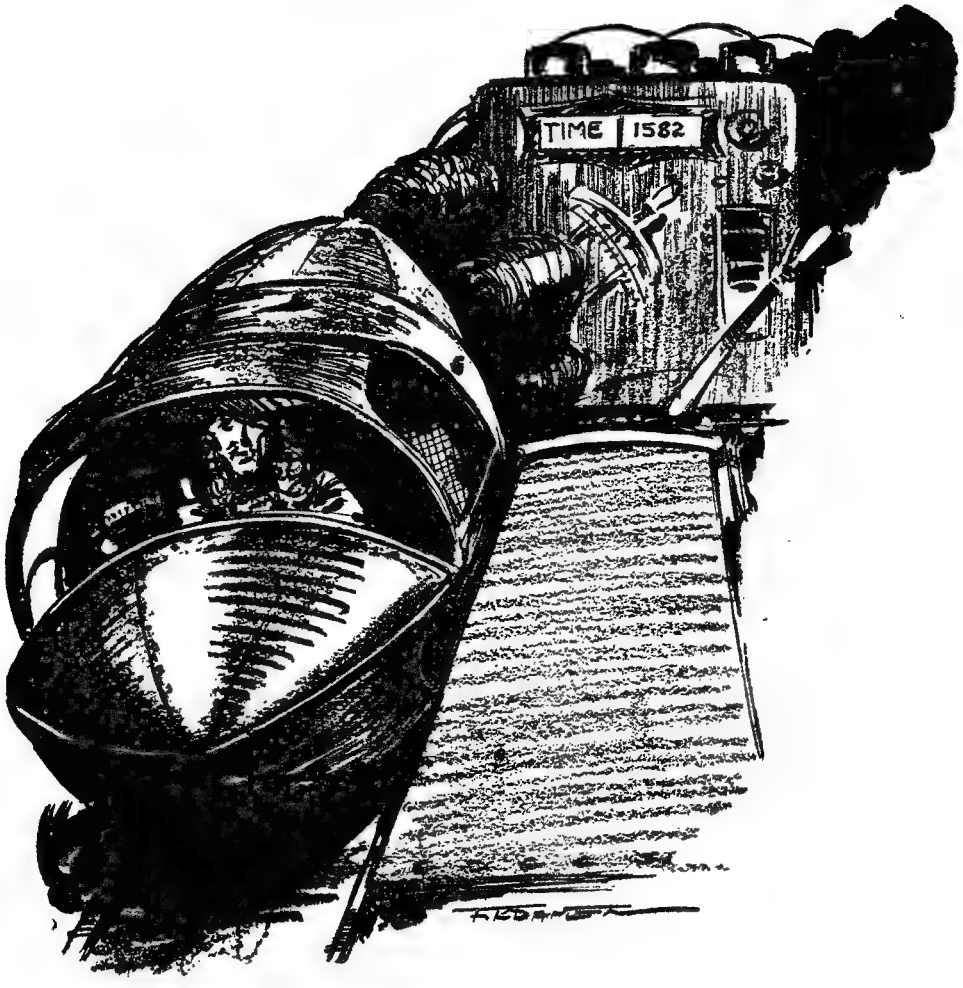
"That is funny," agreed Barry. "It couldn't be because they ran smack into the middle of a battle or a massacre. It would only take a second to snap back out of it. And even if one had been caught it would hardly account for two being lost simultaneously in altogether different spots and eras."

"Two!" exclaimed Kilmer. "We have lost more than two. There was one sent to Greece in '23 of this century, and another to Bavaria around 1700. They haven't been heard of again, either, nor the one we sent to dicker with Sun Yat Sen in China when he pulled off his revolution. There hasn't been but one come back—that fellow who just left here. We sent him to swap machinery to start the Soviet Five-year Plan for the Imperial crown jewels and other loot of the Russian upset. He got back all right, but he says there never was a Russian revolution. The thing has me down. I'm commencing to think the Anachron idea is not so hot after all."

"Hm-m-m," murmured Barry, drawing a pad and pencil to him. "Let us have those dates again. There may be a connection. Satistical analysis does wonders sometime."

"Not in this case," growled Kilmer, but he gave the information. Barry tabulated the data. When he finished, it looked like this:

Destination:	Result:
Spain; 1582	Disappearance.
England; 1582	Normal results.
Bavaria; 1700	Disappearance.
China; 1912	Disappearance.
Russia; 1918	Confused report.
Greece; 1923	Disappearance.
Pennsylvania Colony; 1752	Disappearance.
New France; 1752	Normal results.



"Not much correlation there," observed Barry, frowning at the figures. "How far apart were the first two?"

"On the same day," said Kilmer, "both here and there. They were to have reached down under on October 12th. Here are the exact dates of all the rest. The ones to colonial America were to arrive at the same time also—September 5th. You can't hang it on the destination, either. We sent relief expeditions later. Some came back all right, but with a negative report."

"It's damn queer, I'll admit," agreed Barry. "Suppose I hang onto these for a day or so? I might be able to dope something out."

"Sure," said the gloomy Kilmer. "By the way, it was your old sidekick Maverick who was in charge of the Spanish show. He is nobody's fool."

"No," said Barry, thoughtfully, "and that makes it all the more interesting. I may take a run down to Spain of the Sixteenth Century and look around for him."

"I wouldn't advise it," said Kilmer glumly. "You might fall into the same time hole. *All* of our relief expeditions didn't come back. Several vanished in the same manner as the originals."

"That makes it tougher," remarked Barry, and rose to take his leave.

He spent the remainder of the afternoon in research. The mathematicians tried all sorts of tricks with his dates, but could find no common denominator. Up in Philosophy the sages couldn't be bothered. It was out of their sphere. The shuttle people almost wept at hearing Barry's questions. It wasn't their fault, they insisted, if adventurous time salesmen got themselves killed by medieval bandits or wild Indians. What were a few isolated disappearances against thousands of successfully accomplished round trips?

It was in History that Barry got his first clue, but it by no means clarified the mystery. At the same time it did give him a hunch, and he followed through. Then he spent a few hours reviewing the bulky set of regulations under which he had to work. After that, he made another call on Kilmer.

"Say, boss," he began, "I have an idea who did this to us. He has been dead a good many hundred years now, but in his day there weren't any bigger shots. If I can get around Rule A-800 and—"

Kilmer groaned.

"Those damned rules," he muttered miserably. "Don't you go busting any more rules. We've got away with murder twice. The next time it'll cost us both our jobs. Besides, A-800 is the worst of all—that's the one about not bucking kings and emperors and other potentates, isn't it?"

"Yeh. Only I won't try to do it openly. I can't get at the guy direct because he maintains a private army. I can't bribe him, either. But if I can get him to retract his edict—"

"Now *you've* gone nutty," pronounced Kilmer. "If there's one thing that Anachron is sure of, it is that nothing that is changed in the past can affect us in our own time line. It can only affect the offshoot lines generated by the change. The philosophers swear by that; it is the foundation of our business. Our charter hangs on it."

"I know," said Barry. "But have the philosophers told us everything? We deal with the branch time lines—I just came in off of one of them. Now let's suppose our missing friends are hung up in a blind alley along *our* time line and I get a dead big shot to undo something that he did long ago to ball them up. What it would amount to would be that I create a subsidiary time line along which we can affect the rescue. Do I make myself clear?"

"As clear as Mississippi floodwater," said the weary Kilmer. "Don't bother me with details or philosophy. If you've got a hunch, play it. Now what do you want?"

Barry told him.

"A ten million trade-dollar line of credit—on which I hope to show a profit—and no questions asked."

Kilmer drew a pad to him and began to scribble. He did it with the same show of joy that he might have if he had been making out his own death warrant.

"I might as well be washed up as the way I am," he sighed, and handed the ticket across to Barry.

"Thanks, boss. I'll be seeing you."

Columbus cleared Cadiz in the summer of 1492 with three dinky little tubs. Less than ninety years later—Spanish time—El Almirante Teodoro Barrios del San Francisco and Duque del California del Norte—so Ted Barry styled himself—let go the hook of his magnificent flagship the *San Ysidro*. He strutted his tiny quarterdeck atop the lofty poop and surveyed the crowds on the mole through a Mark VIII Anachron long glass. He could see the fisherfolk gaping, and the astounded stares of scarred seadogs who had doubtless also sailed the *Spanish Main*. The arrival of the three ships had created quite a stir.

The afternoon wore drowsily on while fisher craft circled the little fleet curiously. Never had been seen such stately vessels, or ones of such fine lines and rig. But the admiral and his shipping master, Parker, held their peace, wait-

ing for what they knew must inevitably come. And then, late in the afternoon, but still with remarkable alacrity for Spaniards, they saw the gaudy boat put out from shore. It flaunted the red and gold banner of Castile Aragon.

"I am Don Pablo de Xerife," said the boarding officer, as he mounted to the poop, "harbormaster for my lord the Duke of Medina-Sidonia. He wishes to know whence came these vessels and what the meaning of the strange standard they fly."

"That's a break," replied Admiral Barrios. "I was hoping to meet that bird."

"Una cosa rota?" echoed the bewildered harbormaster. *"Que es?* What broke? What bird?"

"Oh, skip it," said Barry, "I forgot I was not still in India del Poniente. The idiom there is passing strange to unaccustomed ears. Tell your master that the flag is that of the great Indian nation Anachronia that lieth to the northwestward of the king's domain of California. I have come to tell him of the marvels of that rich land and of the cunning skill of the wild men who inhabit it. It was they who contrived the miracle guns you see here, and the wondrous sailing gear. I would that he would take me to His Highness so that I may lay these treasures at his feet."

Don Pablo bowed low, but his eyes were bugging. He had never seen a modern streamlined sailing ship before with tubular steel masts and running gear that was rove through neat galvanized iron blocks. Nor so much clear deck space despite the many guns along the bulwarks. They were different guns, too, from the clumsy brass carronades of the galleons. These were bright and shiny and of the color of good Toledo steel.

"I understand that our lordship," Barry went on, "is contemplating the destruction of perfidious England. If not, he had better have had, for only this year the pirate Drake stuck his nose into my harbor of San Francisco. Soon he will be back with more ships and men to take Anachronia from the infidel savages before ere we can. Can you persuade his lordship to come aboard tomorrow so that I can show what manner of ships we build in Poniente?"

"Surely, yes," said Señor Xerife.

He went away after an hour, fortified by several shrewdly chosen drinks, and carrying a small gold nugget which the admiral assured him were common enough in the northern part of California to be used as paving stones. In addition he carried a Colt revolver and a single box of ammunition. Barry wanted to make very certain of his first impression on the bloodthirsty duke. For Medina-Sidonia was the most powerful of all the courtiers in the train of Philip the Second of Spain. And Philip himself was the fair-haired boy with a certain—

But that could wait, Barry declared, and he went into consultation with Parker as to the details of the morrow. That night they further amazed the local inhabitants of the port by putting on a searchlight display, using the acetylene model that had worked well in old France. It had its effect, for the duke and retinue climbed aboard almost with the sun.

The getting underway went smoothly. Sidonia watched the fishing of the anchor with a practiced seaman's eye and marveled at the smoothness of the Anachron capstan. He marveled more as the sails went up without visible effort and the ship stood out to sea.

"Where can I find a good target?" asked Barry. "I want to demonstrate the guns."

"Along the Moorish shore there are many—far too many," said Sidonia, with a black scowl. "The accursed nonbelievers are as numerous as fleas, and as fleet. The foul pirates show their heels at the first close approach. It would be better to go to the west, where we may come upon an Englishman in a day or so."

"I can't spare the time," was Barry's

mystifying reply. "I'll take the first thing handy. What do you make of that low, rakish thing there to the south—the one with the leg o' mutton sail and rigged out with oars like a centipede?"

" 'Tis one of the accursed Saracens," said Sidonia, "but you waste time. He'll wait like a fox until you are right on him, and then he'll run as though the Evil One were on his tail—which he is. He will be too wily to let you get within gun shot."

"Yeah?" said Barry, and winked at Parker. Then he held up four fingers signifying that the sights were to be set for four thousand yards. Whereupon the helmsman put the rudder over and they began to close upon the corsair. Silently the Anachron-trained gun crews took their posts. Medina-Sidonia gaped again at seeing breechblocks open and the shot and powder fed in from the rear. Off the bow the corsair still dawdled in the distance, a good three miles away, confident that he could outrun the heavier ship if things came to that pass.

Barry lowered his glasses.

"Commence firing," he ordered.

A salvo rippled out. The row of guns reared back on their lashings. And then, before the first shots had even landed, the crews had yanked the breechplugs open and were in the act of loading again.

"Valgame," gasped the Duke of Medina-Sidonia, crossing himself by instinct. At the incredible distance of two miles there had arisen a geyser of white water, and in it flew the fragments of the blasted galley. A second later there was only a thin pall of settling mist, a broken prow sticking up out of the water, and a couple of score of black dots on the water where the surviving Moors still swam.

"There is another galley off there to port," said Parker, pointing.

Barry was not keen to go in for more wholesale murder just to make a sale, but he remembered that Maverick's life and many others depended on the success of his mission. He also remembered that the Moors were unscrupulous pirates in their own right. So he nodded his head and let Parker bring the ship around. By night they had cleaned up five of the galleys—most of them on the

first salvo. It was a deeply impressed duke that disembarked that night.

Two days later Barry found himself in the same ducal coach with Sidonia, jolting along the dusty roads of Spain toward Madrid. Armed postilions and outriders guarded them from ambuscade. All the long way the duke chattered about the great day when he would build an armada and conquer England. He had thought it would take eight or ten years to assemble such a fleet, but here was an adventurer from the New World assuring him it would take much less. That is, if only the king would finance the expedition.

Philip was not at Madrid, but beyond, supervising the building of his great new palace, the Escorial. It was there that Barry found him. The king, failing to recognize the alleged duchy of which Teodoro Barrios claimed to be overlord, glanced at him with scant respect. But that attitude altered when Medina-Sidonia spoke of the wonderful performance of the *San Ysidro*.

"Sire," he urged, "with fourscore such ships we can conquer the earth—the Low Countries and England, who give us much trouble, and Portugal and Mauretania as well. Above all, we must have this land of Anachron of which Don Teodor speaks."

"What of Anachron?" asked the king, leveling his fierce gaze on Barry. His eyes were those of a ruthless fanatic, blinded to all consequences of his terrible acts by the religious zeal that drove him. A hawknosed chief inquisitor looked on with glittering eyes.

"Far to the northwest of Hispania Nueva, on the shores of the Mar Pacifico, lies the land of Oregon, peopled by the tribe of Anachron." Barry had to think furiously, for it would be hard to explain to this king why Juan Cabrillo, who had recently discovered southern California had not gone on to complete the conquest. "It is a land of fog and darkness, and hard to come by sea and impossible by land on account of the mighty mountains. 'Twas but by chance that my ship came upon their chief port. These are not a copperish people as those of Mexico and the Antilles, but whitish, even as we."

"But infidels?" barked the inquisitor.

"Aye, a most ungodly people. Or rather, a people of many gods. There are many of them, tens upon tens of thousands, clever at handwork but greedy and grasping. They have a few good ships, but not many, since they are too fond of luxury to fight. We have only to hire them to build us a sufficient fleet to liquidate the English, and then we will be able to go for them. Sire, they will be a pushover."

Barry bit his lip in mortification for having let himself slip into the Anachronistic dialect, but it didn't matter. In translating his thought into Middle Castilian, he had perforce used the expression "roundheels" which seemed to convey a similar meaning at Philip's Court, for the king grinned briefly at the metaphor. Then he frowned.

"How much will such a fleet cost?"

"A million *pistoles,* sire," said Barry calmly.

"Phew!" It came like the roar of freight locomotive opening its bottom blow. Nearby courtiers and synchophants paled and trembled. A few hastily made the sign of the cross. But the chief inquisitor was fondling the nugget which Medina-Sidonia had brought with him to the court. If these cluttered the landscape—

"Think of the million souls to save, sire," suggested he. "Perhaps his holiness—"

"Ah," breathed the king, "perhaps so. We have spent so much already in Brabant and Holland that only a little more sent after the bad may retrieve it all. Yet, why do these uncouth savages demand money? Is not their country bursting with gold?"

"They do not have use for gold," assured Barry, "but luxuries. Let your gold remain at home. Instead, buy with it paintings, wines, slabs of cork, casks

of olive oil, finely wrought silver vessels and the other art products of Europe. These I will take back with me to give in exchange for the armada. In three years I will return with what I have bought. Then the world will be yours."

There was a long deep silence. At length the king broke it.

"I must have a writing," he said, "duly sealed and sworn."

"You shall have it, sire," said Barry.

Monks were sent scurrying to bring quills and parchment and inkwells. Then followed a period of scratchings as the promissory note was made out. It was a lengthy and impressive document, bristling with "whereases" and ending with "under our hands and seals." The date of its execution was filled in—that day, October 12, A. D., 1579. All that remained was the date of maturity.

"You'd better make it three years," said Barry casually. "It will take a year to make the voyage back by way of the Tierra del Fuego, another year to build and outfit the ships, and a final year here. Yes, three years to the day will do very nicely."

The date was filled in. Barry signed, and the cardinal came to sign as witness. To clinch the matter beyond any possible doubt, there followed a brief ceremony. The direst curses were invoked on either party should he deviate by the slightest iota from the text. It looked bad for Barry, for the palace treasurer was already standing by to deliver the order for the *pistoles*. Within a few minutes the king would have complied with his half of the contract except for the final collection of the funds advanced. Barry would have received his grubstake and the viceroyship of the new dominion. For his part, he must yet deliver the fleet as promised, return the advance, and then make good his conquest of Anachronia.

When it was all over, Barry pocketed his copy of the treaty and followed the royal party to the dining hall. He noticed that the king, the cardinal, and the chief inquisitor, not to mention the Duke of Medina-Sidonia, all looked highly pleased. He might have guessed that they were about to make a tidy profit on the million, since they themselves owned most of the commodities mentioned in Barry's request. Barry did not mind that. The thing was he had managed the loan and given his note. What mattered now was when and where they would discount that note. Surely, since the Jews had been expelled from Spain, there were few if any bankers able to take up so vast a sum. Yet on the whole Barry was as happy over the transaction as the mercenary bigwigs of the court. His first step had been taken. The next day in the lap of the gods. But history was so far on his side. Would history make a monkey of him, or would he make a monkey of history?

"Swallowed it hook, line and sinker," he told Parker, when he got back to Cadiz. "Now home, James."

The three ships bulged with priceless ecclesiastical paintings, a ton or more of the choicest handiwork of Benvenuto Cellini, and other items worth together much more than the million *pistoles* owed for them. Barry could still buy the armada and deliver it and show a profit at the same time. Whether or not he completed the bargain would depend upon the results of his second trip. He meant to make that shortly. In the meantime, the ships weighed their anchors and put out to sea.

It was on one of the Azores that he had his secret base. The *San Ysidro* led the way into the quiet harbor. Barry did not wait for her to discharge her cargo, but ran at once to the station shuttle platform. Then he put through a call to Kilmer.

"Send me a special shuttle right away," he asked. "I'm coming up."

"Did you find Maverick?"

"Not yet. I'm in 1579. He's somewhere else. Step on it, won't you?"

When he got topside he did not tell Kilmer more than the bare facts of what he had done. *Why* he had done it was

still his own secret. If he succeeded, he could boast in due time; if not, the less said now the better. So he told his tale simply. His reward was a wan smile. Kilmer must have someone else in his hair again, Barry concluded, since he looked so sour.

"Glad you salvaged something out of the Spanish thing," said the boss, but with little enthusiasm. "Bugs Chilton played hell in England. He sold Queen Liz, all right. A hundred ships of the line. And now look!"

It was a cancellation order. The English, adhering to a policy that must have been initiated by the first Britons, had decided to wait for the actual coming of the armada before preparing. They would take only one ship of the lot for trial and proof.

"Ninety-nine ships, built and ready for delivery," moaned Kilmer, "and charged to me. And now I get a cancellation."

"Cheer up, boss," grinned Barry. "I'll take 'em. I need eighty for Philip, and it's a cinch that I can sell the other nineteen to Queen Bess when she finds out he has the eighty. I've already figured my price—a half a million doubloons."

Then Barry took a week off and spent it in the country loafing. He had time to burn. After which he returned to New York and reported in.

"I think I'll take that fleet on down and deliver it to Philip," he explained. "Tell the shuttle people to make the date midsummer of 1582. That is ahead of the time I am due to show up, but I may need a little leeway for more negotiations."

Kilmer did not argue with him, but made the arrangements. What Barry was up to he could not guess, especially since he had insisted on having full battle crews for the ships, but all his money was down on him and he couldn't back out now.

"Oh, by the way," said Barry on parting, "if Maverick and the other lads show up while I'm away and wonder what happened to them, just tell them to sit tight and I'll explain when I get back. S'long."

Then Barry was gone. Kilmer's jaw dropped as he gazed at the empty chair. Had Barry been pulling his leg all the while? For at the outset he had proposed to rescue the missing expeditions from wherever it was they were lost, yet he had not gone near any of the dates of their disappearance.

A week rolled by. There had been no further report from Barry, though the starter said that he and his fleet had gotten away from the Azores on time. Then another week went by, and a third. A month followed, and then almost another when things began to break. When they did, they broke with a vengeance.

All four telephones on Kilmer's desk began ringing at once. He took them two at a time and listened incredulously to the excited words of the shuttle starters. The missing expeditions were reporting in from all directions, wanting to know what had happened and what they should do next. There was the fellow in Bavaria, the one in China, the one with Benjamin Franklin, and the two expeditions that had gone looking for them. There was also the salesman sent to modern Greece. And last of all, Maverick.

"Come home and report," was all that Kilmer knew what to say.

Within a few hours they lined up before his desk, rather sheepish and tongue-tied. Each had the same tale to tell.

"We simply floated around in a gray-black sort of pea-soup fog," was the way Maverick put it. "We were like disembodied spirits, without sensation or bodies. The shuttles weren't there—our hands and feet were there—the controls weren't there. It seemed to last for ages. Then, *bang*, everything cleared up. We reported in at our destinations and were immediately recalled. What happened to us?"

"Search me," said Kilmer helplessly.

"Barry knows, but Barry is off in the Middle Ages, selling the armada to King Philip of Spain."

"Why, the rat!" exclaimed Maverick. "That was my assignment!"

"You didn't sell it, did you?" asked Kilmer.

Then the door was opened and Barry walked in, grinning like the wrapping of a catful of canaries.

"Hiya, fellows," he hailed them. "How did you like nonexistence?"

"Huh?" It was a chorus.

"That is what I said. You birds went where there wasn't any time. You went to nonexistent dates. You fell into time holes. There are a lot of 'em."

"Quit kidding," someone said, "there isn't any such thing. Time is continuous. How could there be holes in it? And if so, how did you pull us out?"

"By going back before the holes were dug and stopping the digger from digging."

Barry sat down and turned to Kilmer.

"Everything's jake, boss. I delivered my end to Philip, and then went on to London and sold Liz. She paid through the nose like a good girl and I got my *pistoles* back. And then some. It worried her plenty when I told her what Philip had. But it was dickering with him that took all the time."

"I showed up way ahead of time," Barry went on to explain. "Philip was tickled pink and was for taking possession of the fleet then and there. But I reminded him that the contract didn't call for delivery until October, and that there was the matter of the million *pistoles* to consider. I didn't have 'em. Not yet. He offered to waive the *pistoles,* which would have been that much velvet, but I still wouldn't let him have the fleet. Then he said he would take it. I said O. K., try. So that fell through. Then he wanted to know what I was trying to pull. And I cracks back with what was *he* trying to pull. He

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4. CLEAN BLADE in razor by loosening handle, then rinsing in hot water and shaking. Wiping the blade is likely to damage the edges

didn't understand it, so I told him."

"For Heaven's sake, Barry," cried out Kilmer, "quit beating around the bush and teasing us. Who was trying to put something over whom, and why?"

"Well, sir, I have a great respect for a triple-barreled curse, especially when it is laid on by a cardinal and a chief inquisitor. So had Philip. I was supposed to hand over the fleet on October 12, 1582, and he was required to accept it. Now, as it stood, we couldn't do that, so I suggested that he fix things up so that there would be a date like that. You see, that year was short a few days—"

"Barry!"

"Patience, friends. It would have been, rather, if I hadn't played my cards the way I did. The minute I saw that Philip was as much worried about the curse as I was, I tipped my mitt. From the very beginning, the pope was the man I was after, but I saw no easy way of getting at him. But Philip stood well with him and I picked him as my candidate to do the intervening. It was this way. While I was gone—on the twenty-fourth of February, 1582, to be exact—Gregory, with the advice and consent of a flock of cardinals, mathematicians and astronomers, had issued an edict changing the calendar. The day after October 4th was to be the fifteenth, dropping the missing ten dates into the nowhere. Knowing that was where Maverick was hung up, I had to get it changed. Since a consideration of that sort would not have moved the pope, I had to do it the way I did.

"History already had told me that Gregory XIII considered Philip II a pretty swell fellow. He had already financed him heavily in the wars to bring the Protestant Low Countries back into the fold. I figured he would put out some more to get England and Anachronia. I also knew that Philip was virtually bankrupt and did not have a million of his own. Philip could be counted on to rush a courier to the Vatican with my note and hock it there, counting on repaying it when I came across with my end. When he found out he would get no fleet and no million to repay the loan, Philip was in a terrible dither. He jumped at my suggestion that he use his influence with the pope to have the order annulled. That's what was done. Spain got her armada, the pope got his million back, Anachron made a profit, and you got loose."

"I told 'em that fixed-date system was wrong," muttered Kilmer. "They ought to use net time spans."

"Hey," spoke up the emissary to Philadelphia, "what about me? I wasn't stranded in 1582. I got lost in 1752. Yet Eddy, who started with me, got to Quebec all right. How does that fit?"

"Perfectly. The British didn't get around to adopting the change until September of that year, whereas the French made the change along with the other Catholic countries—as soon as it was effective. It wasn't the date only that counted, but where it was in force. That explains the others. China waited for the revolution to make the change. So did Russia—"

"Yes, what about Russia?" demanded Kilmer, sitting up and paying more attention. "That expedition didn't get lost. It just went haywire."

Barry grinned again.

"In Russia they split it. The Bolsheviks decreed the new calendar and skipped thirteen days, but the Orthodox Greek Church would have none of it. Dilworth hit there on one of the nonexistent dates as far as the Soviets went, but it was a perfectly good date from the orthodox point of view. And since the faithful deny the validity of the revolution and the overthrow of the Czar, he bumped into purely visionary situation. Maybe if you ask the philosophers how—"

"Philosophers!" snorted Kilmer. "Let's all go down to the lounge and have a drink."

THE END.

Brass Tacks

One thing Astounding would very seriously like to do is to help more people retain the realization that the future must be different—but can be made better.

Dear Mr. Campbell: . .

First let me congratulate you on what I believe is the finest issue of Astounding ever to roll off the presses. The material in the February issue was a perfect blend of the gripping realizations so often lost in science-fiction of the last few years, and the satisfying, theoretically correct plots. "Mimsy Were the Borogoves" was the best story, in my estimation. Psychological plots appeal to a great many readers, but few writers have the ability or inclination to do an acceptable job on such. My respect for Padgett is most profound. The Weapon Shop series meets the usual high standards with some to spare, and "Opposites React" is also very good.

Some time ago I decided to write a special letter to Astounding at the time of my graduation from university. A certain Schickelgruber, whose "new order" is the oldest order in time, has necessitated a change in those plans, so here is my letter two years ahead of itself:

I am greatly indebted to Astounding for several reasons. Since 1934 it has played a definite part in my life, as it must have, consciously or unconsciously, in the lives of numerous others. Because it first exerted its influence in my twelfth year, it saved the priceless possession of imagination from the rippling it would have suffered ordinarily. At that age I was already interested in science, and my aptitudes were crystallized and partially directed by science-fiction.

As I read, a complex picture of the future of mankind formed in my mind, along with a determination to take an active part in the making of that world. So besides furnishing hours of pleasant amusement, the magazine gave me a definite aim and somewhat of an idea of long-run aims of science itself. Even the study of the unknown must strive for a goal to be justified, and a scientist must have something more than patience and creative imagination if he is not to be a machine. His goal must be perfection; not only in present-day science, but in all the latent sciences which concern people, such as psychology. There is nothing so futile as a narrow-minded scientist. To sneer thoughtlessly at contraterrene matter, extra-sensory percep-

tion, and space travel, is to denounce all science; for sciences they are, but as yet their components consist of too many unknowns to reduce to mathematical terminology. Astounding represents a sketchy picture of the ultimate Utopian goal, that limit approached by the infinite series which is our daily life; and of the paths leading to it. It is a lonely pioneer exploring the vast reaches of time, and planting signposts here and there in the maze of eternity.

To me science-fiction means Astounding. It has impressed me as being honest and sincere in its work. It seems more than mere amusement, and never contains that degrading undercurrent of cynicism always present in the poularized pseudo-science so common today. The credit for all this goes to Mr. Campbell, who formulates the policies of the magazine, and to the writers whose material he deems worthy of publication. I am expressing my appreciation now instead of when I had planned because of the proximity of a call to active service. Let's all hope the conflict now in progress turns out to be a short cut in the achievement of a better world.—David L. Dobbs, 1011-17 Avenue, South East, Minneapolis, Minnesota.

He feels even Kramer's heroines are bearded he-men.

Dear Mr. Campbell:

I have just seen a copy of the beloved mag in its "new" size, and believe me, nothing has done my poor old soul so much good for many a month. I never did like the large size because it was too clumsy for reading in bed, and besides the covers always got torn around the edges, and who wants to file away a messy copy? Seems to me that if you want to break into the slick field, the way to do it is by printing the mag on slick paper, not by making it of such size that it won't fit into the racks reserved for pulps.

I've got some opinions on the new cover, too: Why, if you *are* going back to the old size, don't you bleed the cover pic on three sides again? It makes the mag seem about five percent smaller as it is now. Another thing, why don't you get rid of that obnoxious square box sticking up into the cover? It may be a good idea to have the story connected with the cover, but I'd rather have it up at the top where it used to be, and not depriving me of any of the pleasure I get out of a really top-notch cover. This Timmins is turning out some stuff that stacks up pretty well beside Rogers'.

Why, oh, why, do you insist on letting Kramer illustrate your lead story? Maybe he gives you two for the price of one or something, but I certainly can't see anything in his work. He is weak on composition, his interpretations are indefinite, and every face he draws looks like it needed a shave. I don't mind it on the men so much, but even his heroines—or am I being too romantic for STF?—look like the bearded lady.

And having had my say, I fold up my typewriter like an Arab, climb into my fourth-dimensional gyro cycle, and silently scoot away.—Hugh R. Wahlin, 137 N. Prospect, Madison, Wisconsin.

Dinosaurs and other oddments of paleozoology have been stock background in science-fiction for years. Ley may produce some new fauna.

Dear Mr. Campbell:

Whether induced by the return to the old small size or simply by the unusually high quality of the fiction this issue, I have a distinct feeling that the change which everyone seemed to look forward to as an unpleasant necessity was for the better instead of the worse. Be that as it may, here's how things stack up in the May Astounding:

1. "Gather, Darkness!" by Fritz Leiber, Jr. For some reason, Mr. Leiber has never clicked to any great degree with me before; I have always regarded

him as a rather mediocre author. My opinion underwent a hasty revision after digesting "Gather, Darkness!" It is more than excellent. The knowledge that two more parts are on the way is most pleasant—besides strengthening my contention that serials are a must in any magazine.

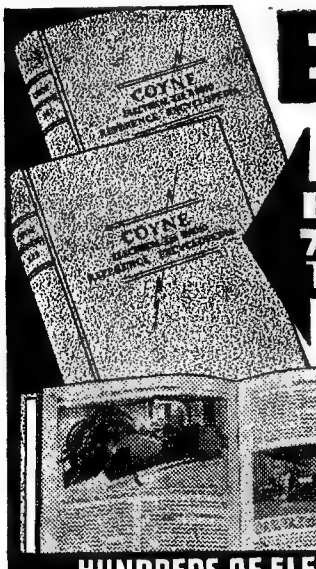
2. "Pacer," by Raymond F. Jones. I was tempted several times to put this yarn in first place, despite the obvious superiority of Leiber's serial. Jones has here written a straight "formula" story, interjected several new twists, and somehow come up with a really swell yarn. I can't explain this phenomena, but more from Jones would be most welcome.

3. "Fifth Freedom," by John Alvarez. Not nearly as good as the Jones and Leiber tales, but good nevertheless. It brings up one point upon which I agree one hundred percent, let's keep propaganda out of science-fiction. Most magazine propaganda is more of a joke than a weapon against the enemy, anyway.

4. "Let's Disappear," by Cleve Cartmill. Good, but far below Cartmill's standard; he can do better than this.

5. "Ghost," by Henry Kuttner. Hm-m-m, one of my favorite authors reposing on the bottom of the fiction list. The story was clever, well-written, and interesting. But it wasn't very impressive; one of those things you read and then wonder why you spent the time on it. Haunted machines? I don't care about probability, but I think we ought to stick to *possibility* in science-fiction, remote though the possibility may be. Kuttner does better on stories in which he concentrates on straight, formula science-fiction, and doesn't try to be too clever and original. There have been exceptions, though—notably "Nothing But Gingerbread Left."

6. "The Old Ones," by Willy Ley. Interesting. But no science-fiction or any phase of it. As it is, the article is quite acceptable, but I cannot help but wish that Mr. Ley had spent his time



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writing about something akin to science-fiction. After all, Astounding isn't a zoology—or zoogeography—journal.

The cover was excellent, and the enlarged Brass Tacks very much appreciated.—Chad Oliver, 3956 Ledgewood, Cincinnati, Ohio.

How do you decide whether a man is an abnormally brilliant homo sapiens or a low-grade homo superior, anyway?

Greetings, Mr. Campbell:

I didn't get around to writing in last month to tell you how much I enjoyed "Mimsy Were the Borogoves." Evidently, however, my support wasn't needed. Strange, isn't it?

It is rather hard to make a choice this month. "The Weapon Makers" is a tremendous story, and I like tremendous stories. But it is rather unnecessarily obscure, I think; little continuity; time element is all mixed up. Probably should have been a few thousand words longer, with most of the extra words devoted to tying the various parts together.

"Escape" depicts a couple of superhumans who seem to be comprehensible and still highly human—a dubious possibility, I should say, but one to be wished for. The speech at the end seemed to be out of character, though.

"Swimming Lesson" seems to be told in excellent fashion, and is timely, too, in the sense that it presents in the scientist a type of mentality which is blind to the lusts of others, because it entertains no such thoughts.

"Open Secrets" presents a rather old idea—that we are "kept"—in a unique fashion, and a rather disturbing fashion, also. It is hard to decide which of the above ranks first.

The remaining story, "Abdication," is definitely fifth, and still is a good story. I'll stick them in this order:

1. "The Weapon Makers."
2. "Swimming Lesson."
3. "Escape."
4. "Open Secret."
5. "Abdication."

Richardson finishes up his article in good style. I notice that he says nothing about the *time* involved in a trip to Pluto, for all its "nearness" in energy units. Willy Ley plays a dirty trick, debunking old Tyrranosaurus Rex that way.

Now for Probability Zero:

1. Kuttner's "Corpus Delicti."
2. Roscoe E. Wright's "Ultimate Opposition." The point might have been better put in this one, but the idea was more original than most.
3. Tucker's "Miraculous Fluid."

Too bad Astounding and *Unknown Worlds* must go back to small size; I really like the big issues. But the change won't bother me as it will some. My "collection" is simply stacked on shelves, and size doesn't matter much. As a matter of fact, I think we are lucky that both are to continue at all.—D. B. Thompson, 1903 Polk Street, Alexandria, Louisiana.

He's planning a lot more of that future history right now—but not in a position to write it.

Dear Mr. Campbell:

I noticed in the April issue of Astounding that Robert Heinlein is planning a new story. In 1941, you printed part of Heinlein's history of the future, and there were some planned but not written stories on it. Does Heinlein plan to finish those stories?

I'm sorry to hear about the size change in Astounding, but, large or small, Astounding is still the best science-fiction magazine on the market.

Now, for the May Analytical Lab.:

1. "The Weapon Makers."—One of A. E. van Vogt's best stories. Much better than the preceding weapon shop stories.
2. "Swimming Lesson."—One of the best novelettes yet. Raymond F. Jones is a good author.
3. "Open Secret."—A good idea and

a well-written story.

4. "Escape."—Good.

5. "Abdication."—Good.

The cover is very good. Timmins is just as good as Rogers was.—Frank Eichler, 8725-62 Road, Elmhurst, New York.

Concerning bugs of the kind that don't crawl around or fly—but are exceedingly annoying.

Dear Mr. Campbell:

The stories of your Mr. George O. Smith may not be the most gripping, stupendous, colossal science-fiction stories ever written, but they have one salient virtue: the author of the Venus Equilateral stories has evidently done some actual scientific or engineering work. Nontechnical readers who don't know how a laboratory actually feels can get an excellent idea from these stories—the first science-fiction stories, as far as I can recall, of which this can be said.

Quite another comment is merited by John Alvarez' "Fifth Freedom." Not about the plot, characterization—convincing, however distressing one may find these sensitive, artistic youths who simply *loathe* the brutal facts of existence—but about the captain's remarks on Page 122: "This morning . . . the atomic tubes were just coming off the drafting boards," and later, "That gives us the two weeks we need," presumably to get these just-hatched designs into mass production, and, further, to get some of the things into actual service.

I can believe in atomic-rocket airplanes without any trouble at all. I can believe in spaceships, disintegrators, and even, with some effort, in antigravity screens. But, having had a little personal acquaintance with aircraft development and manufacture, I'll be triply damned if I can believe that it will ever be possible to complete a set of drawings on a powerful and novel weapon one day, and a fortnight later to have the thing ready for use in significant numbers. *That* would require powers not of this world, and make the whole enterprise a fit subject for *Unknown Worlds*.

What would actually happen would be something like this: Some atomic-rocket enthusiasts pester the Department of National Defense for years. The Department finally issues a set of specifications, and various organizations, both public and private, get to work to develop designs to meet them. The designs don't begin to come in for six months or a year. The Department orders experimental models according to several of the more promising designs.

Then trouble begins. Company A's rocket is one-hundred-percent overweight, and its contract is cancelled. Company B's design requires hafnium hypomethacrylate, which is such a critical material that the experimental ship isn't finished until after the war. Company C folds when the chief engineer kills himself because one of his wives met the other at a bridge party and began comparing notes.

But some of the designs eventually pan out. Let's see what happens to one of them, contrived by the engineers of the National Aerodynamic Research Institute. The fuselage is half finished when the Department tells the Institute that it must be modified to carry a gravimetric locator. That means moving twelve systems of plumbing and wiring—a. c., d. c., lubricating oil, hydraulic oil, oxygen, vacuum, CO_2, et cetera—around to make room for it. This takes time: one month, in fact.

Then a visiting engineering officer remarks: "How do you expect the pilot to bail out at supersonic speeds without being cut in two by the edge of the cockpit?" The Institute men reply that they never thought of that; and since aviators are supposed to take risks, is it really necessary? The officer says they're damned right it's necessary, and presently orders come through to incorporate means for arresting the

machine in midair, or at least slowing it down sufficiently to let the personnel out. More months.

What with one thing and another, a couple of experimental ships are ready to fly about a year after completion of the preliminary design. The test pilot takes one of them up, and immediately has his tail surfaces blown off by the supersonic air stream. He bails out, and the rocket dives into a swamp and is wrecked.

The engineers design a new, stronger set of control surfaces. The pilot takes the second ship up, lands, and climbs out green. "Flutter," he explains. "You must have moved the c. g. aft of the hinge line." So the tail is further modified by stabilizing weights, with the result that the pilot finds his controls completely immobile at the higher speeds.

"Give him a servo-mechanism," says the project engineer. So the design is reworked to incorporate servos, which add so much weight that the wing area has to be increased to carry them, and the landing gear strengthened, and so on, with the result that the engineers find themselves with a machine twice the size of the original. More months.

Two years after the completion of the first design, the Department gets enough actual rockets to assign them to a squadron who will fly them to see what bugs develop in service. A couple of factories begin building the rockets. The Department, which has been catching dead cats from the public for lack of vision, releases photographs and a few general particulars of the rockets to the newspapers. The public whoops; at last we've got something to sweep the dastards off the earth next week, if not sooner.

By the time the experimental squadron has been flying for six months, so many bugs have developed that production has to be halted to incorporate scores of changes. Another six or eight months is required to train pilots before the rockets are sent to the fronts. The first ships to go into action scare their pilots worse than the enemy. Public opinion condemns the whole project as a fantastic flop. And there are always more bugs for the harassed engineers to sweat over.

Five years after the writing of the spec, a few practical rockets are actually hurting the enemy. Then Company X flies the experimental models of a super-supersonic rocket steered by gyroscopes instead of conventional control surfaces. Public opinion goes off with another whoop; why are we still building the obsolete Institute rocket when the mighty X rocket is available? They don't know that the X engineers are contemplating *seppuku* because their gyros have developed enough bugs to keep them busy delousing for the next five years, before the system will be practical.

Anyway, that gives you the idea.—Caleb Northrup.

If you explored one star a week, and a thousand similar explorers were at work, how long would it take to investigate every star in this one Galaxy? In ten million years of such work, you could map one sector of this Galaxy perhaps—

Dear Mr. Campbell:

If space travel is coming as we all firmly believe, why is it that Earth has had no visitors from space as yet? Why haven't other, much higher developed entities existing elsewhere, never come to our planet? There must be a million and one enormously advanced races existing in this relatively old universe of ours; why haven't we heard from them?

Either space travel is impossible or we are the only intelligent race existing, or rather our planet is the only one supporting life. The third possibility, of course, is the unknown factor.

I wish one of your very capable writers would explain this question in an article in your magazine.—Otto Essig, 48 Manchester Terrace, Springfield Massachusetts.

Book Review

MOON UP—MOON DOWN, by John Alden Knight. New York, Charles Scribner's Sons, 1942. 163 pp. $2.50.

Once a retired British naval officer noticed how many scientifically rejected data rested on the testimony of trained and reliable mariners. Once a Bronx eccentric began collecting the multitudinous scraps of fact that fit into no accepted scheme of things. Once a British engineer observed the peculiar nature of his dreams and resolved to record and study them.

And so Lieutenant Commander Rupert T. Gould established the existence of that curious species of marine animal popularly known as the sea serpent, Charles Fort raised hell among the sciences in general, and J. W. Dunne revolutionized the theories and the very concept of time.

Now a real-estate broker has begun worrying about the feeding times of fish, and the result of his worries may deserve to go on your bookshelf beside Gould and Fort and Dunne.

For John Alden Knight resembles those men in this: He is a layman who has happened to grab hold of one of the loose ends of string in that cat's cradle which is known as the framework of science, and he has had the energy and the courage to keep on pulling.

His particular loose end is this: There are certain times of day when fish are unusually active and eat eagerly. These times vary from day to day, and are independent of regular feeding habits, the availability of food, or any apparent external circumstance.

Obviously if such times can be predicted accurately, the information will be invaluable to fishermen. Well, it can be, according to Mr. Knight; and he should know, since he has made a good living for years doing just that—publishing tables which show the exact time of each day in each part of the country when the fish will bite.

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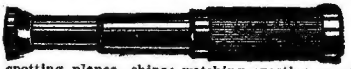

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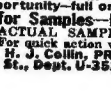

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He has followed up this idea far beyond fish, and has determined by observation that there are similar predictable periods of heightened activity among all higher animals, even in man himself.

And these periods seem to be correlated with tidal movements and to depend on the position of the masses of the Sun and the Moon relative to the Earth, whence Mr. Knight has evolved the term "the Solunar Theory."

But *Theory* is an inept term for this curious discovery; for it is precisely in the theoretical department that Mr. Knight bogs down. He amasses an almost indisputable collection of data; the reader of his book comes out convinced that some hitherto unlabeled influence operates on all forms of life and must henceforth be reckoned with in our concepts.

But his proofs are entirely empirical. The Solunar Theory works so well that commercial fisheries now operate on it, and it is not unlikely that human business and factories could benefit by its use; but Mr. Knight's attempts at explaining why it works are a sorry mixture of guesswork and half-understood patter. (The idea seems to be roughly that a certain position of the Sun and Moon weakens the Heaviside layer, thereby admitting more cosmic radiation, thereby increasing the ionization of the atmosphere, and thereby—)

It is not, however, the duty of the pioneer to provide the correct explanation of what he has discovered. In this little volume Mr. Knight has at least indicated a fascinating new realm in the borderlands of science; and if twenty years from now you find your working hours being regulated according to Solunar Periods, don't say that Mr. Knight and I didn't warn you.

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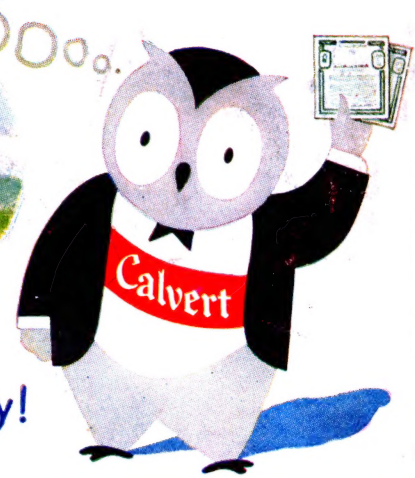

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